400 Seventh Street, S.W.
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U.S. Department
of Transportation

**National Highway
Traffic Safety
Administration**

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*** *** ***

TRANSPORTATION RESEARCH CENTER

Indiana University
Bloomington, Indiana 47403-1599

REMOTE AIR BAG REPORT

CASE NO. - 96-28
FLEET - PRIVATE VEHICLE
LOCATION -
ACCIDENT DATE -

Submitted By:

Associate Scientist
and

Associate Scientist

Revised Submission:

Contract Number:

Prepared for:

U.S. Department of Transportation
National Highway Traffic Safety Administration
National Center for Statistics and Analysis
Washington, D.C. 20590-0003

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The crash investigation process is an inexact science which requires that physical evidence such as skid marks, vehicular damage measurements, and occupant contact points be coupled with the investigator's expert knowledge and experience of vehicle dynamics and occupant kinematics in order to determine the pre-crash, crash, and post-crash movements of involved vehicles and occupants.

Because each crash is a unique sequence of events, generalized conclusions cannot be made concerning the crashworthiness performance of the involved vehicle(s) or their safety systems.

Technical Report Documentation Page

1. *Report No.* TRC/IU Case No. 96-28	2. *Government Accession No.*	3. *Recipient's Catalog No.*
4. *Title and Subtitle* Remote Air Bag Investigation Vehicle - 1996 Nissan Maxima Location -		5. *Report Date:* 6. *Performing Organization Code*
7. *Author(s)*		8. *Performing Organization Report No.* Task #s
9. *Performing Organization Name and Address* Transportation Research Center Indiana University 222 West Second Street Bloomington, Indiana 47403-1501		10. *Work Unit No. (TRAIS)* 11. *Contract or Grant No.*
12. *Sponsoring Agency Name and Address* U.S. Department of Transportation (NRD-32) National Highway Traffic Safety Administration National Center for Statistics and Analysis Washington, D.C. 20590-0003		13. *Type of Report and Period Covered* Technical Report Crash Date: 14. *Sponsoring Agency Code*

15. *Supplementary Notes*
Remote air bag deployment investigation involving a 1996 Nissan Maxima, 4-door sedan, with manual lap belt; automatic, motorized, shoulder belt; and driver's air bag

16. *Abstract*
This report covers a remote investigation of an air bag deployment crash that involved a 1994 Nissan Maxima and a 1990 Geo (NUMMI) Prizm. This crash is of special interest because the Maxima's driver sustained a lacerated aortic arch after being contacted by his deploying driver air bag. The Maxima was traveling south, entering a right-hand curve, in the southbound lane of a two-lane, undivided, state road. The Prizm was traveling north, in a left-hand curve, in the southbound lane of the same two-lane, undivided, state road. The crash occurred in the southbound lane of the roadway. The front right half of the Maxima (case vehicle) impacted the front right half of the Prizm (vehicle #2) causing the case vehicle's driver supplemental restraint system (air bag) to deploy. The case vehicle and vehicle #2 were both towed due to damage. The case vehicle rotated approximately 90 degrees clockwise after impact and came to rest at the approximate point of impact straddling the southbound lane heading west. Vehicle #2 rotated approximately 60 degrees clockwise after impact and came to rest on the grassy roadside approximately 5 meters (16 feet) west of the west road edge heading northeast. Because the case vehicle's driver (71-year-old male) was the sole occupant of the vehicle and subsequently expired, the driver's pre-crash posture, seat track location, and manual restraint usage are all unknown. In addition, it is unknown if the case vehicle was equipped with a tilt steering wheel. Based on the police photographs and the driver's medical records, the driver was using his available, passive, motorized, two-point, shoulder belt. He sustained, according to his medical records, a fatal laceration to his aortic arch and soft tissue injuries, which included a laceration to his left forehead, a contused left upper chest, and abrasions over his left clavicle and right knee. The clavicle and knee abrasions resulted from loading his passive belt and the left dash, respectively. The forehead laceration most likely came from striking the left window frame, and the fatal aortic laceration and left upper chest contusion resulted from loading the deploying air bag and passive belt.

17. *Key Words* Air Bag Deployment Motor Vehicle Traffic Crash Injury Severity		18. *Distribution Statement* General Public	
19 *Security Classif. (of this report)* Unclassified	20. *Security Classif. (of this page)* Unclassified	21. *No. of Pages* 26	22. *Price* $5,300

Form DOT 1700.7 (8-72) Reproduction of completed page authorized

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TRC/IU REMOTE AIR BAG REPORT

TRC/IU CASE NO. 96-28

FLEET - PRIVATE VEHICLE
LOCATION -

SUMMARY

This report concerns a motor vehicle crash involving an air bag equipped 1994 Nissan Maxima and a 1990 Geo (NUMMI) Prizm occurring in 1996 at 3:20 p.m., in a rural area on a state road. This crash is of special interest because the Maxima's driver sustained a lacerated aortic arch after being contacted by his deploying driver air bag.

The Maxima was traveling south, entering a right-hand curve, in the southbound lane of a two-lane, undivided, state road when it impacted the Prizm which was traveling north, in a left-hand curve, in the southbound lane of the same two-lane, undivided, state road. The crash occurred in the southbound lane of the roadway. The Maxima rotated approximately 90 degrees clockwise after impact and came to rest at the approximate point of impact straddling the southbound lane heading west. The Prizm rotated approximately 60 degrees clockwise after impact and came to rest on the grassy roadside approximately 5 meters (16 feet) west of the west road edge heading northeast.

The front right half of the Maxima impacted the front right half of Prizm. The Maxima and the Prizm were both towed due to damage. The CDCs are estimated as: **12-FZEW-2 (-10)** for the Maxima and **12-FZEW-4 (+10)** for the Prizm. The WinSMASH reconstruction program, damage only algorithm (based on CDCs only since no actual vehicular crush measurements were obtained), was used on the highest severity impact to the Maxima. The Total, Longitudinal, and Lateral Delta Vs are respectively: **33.8 km.p.h. (21.0 m.p.h.)**, **-33.3 km.p.h. (-20.7 m.p.h.)**, and **+5.9 km.p.h. (+3.7 m.p.h)**.

The 1994 Nissan Maxima was equipped with a driver supplemental restraint system (air bag) which deployed as a result of the frontal impact. Because the Maxima's driver (71-year-old male) was the sole occupant of the vehicle and subsequently expired, the driver's pre-crash posture, seat track location, and manual restraint usage are all unknown. In addition, it is unknown if the Maxima was equipped with a tilt steering wheel. Based on the police photographs and the driver's medical records, the driver was using his available, passive, motorized, two-point, shoulder belt. He sustained, according to his medical records, a fatal laceration to his aortic arch and soft tissue injuries, which included a laceration to his left forehead, a contused left upper chest, and abrasions over his left clavicle and right knee. The clavicle and knee abrasions resulted from loading his passive belt and the left dash, respectively. The forehead laceration most likely came from striking the left window frame, and the fatal aortic laceration and left upper chest contusion resulted from loading the deploying air bag and passive belt.

TRC/IU REMOTE AIR BAG REPORT

TRC/IU CASE NO. 96-28

FLEET - PRIVATE VEHICLE
LOCATION -

CRASH DATA

Location/Street:	State Road
State:	
Area/Type:	Rural, undeveloped
Crash Date/Time:	@ 3:20 p.m.
Investigating Police Agency:	State Police Department
Crash Type:	Vehicle / Vehicle - head-on
Occupant Injury Severity (air bag vehicle):	Laceration {tear} aorta (AIS-5)

AMBIENT CONDITIONS

Light Conditions:	Daylight
Weather Condition:	Overcast
Precipitation:	Rain
Road Surface:	Wet
Temperature:	17 degrees C (63 degrees F) @

ROADWAY

	Case Vehicle	Vehicle #2
Location:	State road	State road
Number of Travel Lanes:	Two-lanes, undivided	Two-lanes, undivided
Width:	3.6 meters (11.7 feet)	3.6 meters (11.7 feet)
Surface Type:	Asphalt	Asphalt
Vertical alignment:	Level (approaching positive grade)	Level (leaving negative grade)
Horizontal alignment:	Right-hand curve	Left-hand curve

ROADWAY (CONTINUED)

	Case Vehicle	Vehicle #2
Traffic Density:	Moderate	Moderate
Speed Limit:	56 km.p.h. (35 m.p.h.)	56 km.p.h. (35 m.p.h.)
Traffic Controls:	Double solid yellow center lines, solid white edge lines on east and west road edges	Warning ← sign (curve), double solid yellow center lines, solid white edge lines on east and west road edges

VEHICLES

	Case Vehicle	Vehicle #2
Year:	1994	1990
Make:	Nissan	Geo (NUMMI)
Model:	Maxima	Prizm
Body Type:	Four-door sedan	Four-door sedan
V.I.N.:	JN1HJ01F9RT------	1Y1SK5162LZ------
Mileage:	86,768 km (53,915 m) per Police Crash Report	155,434 km (96,582 m) per Police Crash Report
Windshield damage/source:	Cracked from impact forces per photographs	Cracked from impact forces per photographs
Active Restraints:	Two-point, lap belt in front outboard seating positions; three-point lap and shoulder belts in back outboard seating positions, and lap belt only at back center position	Three-point, lap and shoulder belts in front outboard seating positions; lap belt only at back center position; unknown belts in back outboard positions
Passive Restraints:	Two-point, motorized, shoulder belts in front outboard seating positions, and factory installed driver supplemental restraint system (air bag)	None per photographs
Anti-lock brakes:	Option, unknown if equipped	Unknown if option available
Fleet:	Private vehicle	Private vehicle
Tow status:	Towed due to damage	Towed due to damage

VEHICLES (CONTINUED)

Reported Defects:	Unknown	Unknown

VEHICLE DAMAGE

	Case Vehicle	**Vehicle #2**
DEPLOYMENT IMPACT		
Event number:	First	First
Object struck:	Vehicle #2	Case Vehicle
Damage location:	Front	Front
CDC:	12-FZEW-2 (-10)	12-FZEW-4 (+10)
Estimated maximum crush:	25 cm (9.8 in)	80 cm (31.5 in)
Damaged components:	Front bumper, grille, and hood; right front headlight and wheel assemblies; right and left fenders; and windshield	Front bumper, grille, hood; right front door and headlight and wheel assemblies; right fender and roof; and windshield
Repair estimate:	Unknown	Unknown
Interior damage:	Driver air bag module	Unknown

VEHICLE VELOCITY ESTIMATES[1,2]

Highest Delta "V"	**Case Vehicle**	**Vehicle #2**
Reconstruction Program:	WinSMASH	WinSMASH
Program Algorithm:	Damage only (i.e., CDC)	Damage only (i.e., CDC)
Travel Speed[1]:	56 km.p.h. (35 m.p.h.)	64 km.p.h. (40 m.p.h.)
Total[2] Delta "V":	34 km.p.h. (21 m.p.h.)	46 km.p.h. (29 m.p.h.)
Longitudinal[2] Delta "V":	-33 km.p.h. (-21 m.p.h.)	-46 km.p.h. (-28 m.p.h.)
Lateral[2] Delta "V":	+6 km.p.h. (+4 m.p.h.)	-8 km.p.h. (-5 m.p.h.)

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[1] These speed estimates are based on the Police Crash Reported speed limit and witness statements (i.e., the best available evidence indicates that vehicle #2 was traveling faster than the case vehicle). For additional discussion, see the page entitled: **TRC VECTOR ANALYSIS ITERATIONS**.

[2] In this contractor's experience, these delta V estimates are too high.

COLLISION SEQUENCE

PRE-CRASH: According to the Police Crash Report, the case vehicle (Maxima) was traveling south, entering a right-hand curve, in the southbound lane of a two-lane, undivided, state road and was attempting to continue in its southward direction of travel. According to the Police Crash Report, vehicle #2 (Prizm) was traveling north, in a left-hand curve, in the southbound lane of the same two-lane, undivided, state road. According to the statement on the Police Crash Report given by vehicle #2's driver, he had successfully maneuvered to avoid an oncoming, noncontact vehicle in his northbound lane (i.e., by steering left into the southbound lane) but had not yet returned[3] to his proper lane. According the crush and final rest positions of the two vehicles which are shown in the available photographs (see **SELECTED PHOTOGRAPHS #02** through **#05**, **#07**, **#09**, **#12**, **#13**, and **#16**), upon recognizing the impending collision, both drivers steered left. Based on the available photographic evidence, the case vehicle continued essentially straight ahead prior to impact and vehicle #2 swerved leftward while continuing ahead prior to impact. The crash occurred in the southbound lane of the roadway.

CRASH: According to the available photographs, the front right half of the case vehicle impacted the front right half of vehicle #2 causing the driver supplemental restraint system (air bag) to deploy. The case vehicle rotated approximately 90 degrees clockwise after impact and came to rest at the approximate point of impact[4] straddling the southbound lane heading west. Vehicle #2 rotated approximately 60 degrees clockwise after impact and came to rest on the grassy roadside approximately 5 meters[5] (16 feet) west of the west road edge heading northeast.

DRIVER/OCCUPANT DATA

	Case Vehicle	Vehicle #2
Age:	71-year-old	18-year-old
Sex:	Male	Male
Height:	183 cm (72 in)	Unknown
Weight:	80 kg (176 lbs)	Unknown
Occupation:	Retired per interviewee	Unknown
Active Restraint System/Usage:	Two-point lap belt/Usage is unknown	Three-point lap and shoulder/Used

[3] This description indicates a successful avoidance maneuver to a prior critical event.

[4] This estimate is based on the debris shown on the Police Crash Report.

[5] This estimate is based on the police reported tire positions of the two vehicles.

DRIVER/OCCUPANT DATA (CONTINUED)

	Case Vehicle	Vehicle #2
Usage Source:	None available	Rescue squad per Police Crash Report
Passive Restraint System/Usage:	Two-point, motorized, shoulder belt/Used; driver air bag/Air bag deployed	Not equipped
Usage Source:	Motorized shoulder belt: vehicle photographs; Driver air bag: vehicle photographs, interviewee, medical records, and Police Crash Report	Not applicable
Eyeglasses/contacts:	Eyeglasses per medical records	Eyeglasses per Police Crash Report
Vehicle Familiarity:	Unknown	Unknown
Route Familiarity:	Unknown	Unknown
Trip Plan:	Recreation (country club) to unknown	Unknown to social (i.e., pickup a friend)
Manner of Leaving Scene:	Ambulance	Ambulance
Type of Medical Treatment:	Hospitalized and subsequently died approximately 8 hours post-crash	Transported, unknown treatment
Blood Alcohol Level:	.02 (19 mg/dl)	Not tested

CASE VEHICLE DRIVER INJURIES

Description of Injury	A.I.S.	Source of Data	Injury Mechanism	Certainty
Laceration {tear} on aortic arch between left common carotid artery and right innominate (brachiocephalic[6, See next page]) artery with bleeding confined to the mediastinum and bilateral hemothoraces	420216.5,4	2	Air bag, driver's[7, See next page]	{Probable}
Laceration, two centimeters, left forehead over eyebrow	290602.1,7	2	Left side window frame	{Probable}
Contusion left upper chest	490402.1,2	2	Air bag, driver's[7, See next page]	{Probable}

CASE VEHICLE DRIVER INJURIES[6,7] (CONTINUED)

Description of Injury	A.I.S.	Source of Data	Injury Mechanism	Certainty
Abrasion over left clavicular area	790202.1,2	3	Passive seat belt restraint webbing	{Certain}
Abrasion, small, right knee	890202.1,1	3	Left dash below instrument panel	{Probable}

DISCUSSION

Because the case vehicle's driver was the sole occupant of the vehicle and subsequently expired, the driver's pre-crash posture, seat track location, and manual restraint usage are all unknown. In addition, it is unknown if the case vehicle was equipped with a tilt steering wheel. According to the available police photographs[8], the driver was using his two-point, motorized, shoulder belt.

According to the Police Crash Report and the available photographs, the case vehicle's driver steered to the left attempting to avoid the crash. As a result of this attempted avoidance maneuver and the use of his available, passive, shoulder belt, he most likely moved slightly to his right just prior to impact.

Based on the Police Crash Report and occupant kinematic principles, the case vehicle's impact with vehicle #2, not only deployed the driver's air bag, but thrust the driver forward and upward loading his motorized, shoulder belt prior to his encountering the deploying air bag. If the case vehicle's driver was not using his available, manual, lap belt, then based on occupant kinematic principles he would have *"submarined"* forward with his hips and legs. During the impact, the case vehicle rotated approximately 90 degrees clockwise causing the driver to experience a substantial counterclockwise torque and sending him to the left with respect to his rotating vehicle. The torque forces contributed strongly to the overall severity of the driver's experience because they caused a reversal of the driver's rightward motion.

According to the driver's medical records, the case vehicle's driver exited his vehicle under his own power[9], took a step, and then collapsed. He was transported to a local hospital where the tear near the top of the aortic arch was diagnosed via angiogram. He was transferred to a trauma hospital via helicopter, where surgery to repair the torn aorta was not successful. The

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6 The anatomical structure of this driver's aorta arch was anomalous. Normally the brachiocephalic artery goes upward from the arch and splits into the right subclavian artery and the right common carotid artery. However, for this driver there was no brachiocephalic artery in that both the right subclavian (first) and the right common carotid (second) arteries ascending directly from the arch itself. The laceration of the arch occurred between the right common carotid artery and the left common carotid artery.

7 Both the case vehicle's driver air bag and two-point, motorized, shoulder belt contributed to the chest compression which caused the aortic arch laceration.

8 See **SELECTED PHOTOGRAPHS #09** and **#11** which show that the motorized shoulder belt was not disconnected.

9 Photographs of the case vehicle (see **SELECTED PHOTOGRAPHS #11**) indicate that the driver's door and motorized shoulder belt assembly were not damaged; therefore, he probably just opened his door and got out of his vehicle in the normal manner.

DISCUSSION (CONTINUED)

case vehicle's driver was pronounced dead on the operating table approximately eight hours post-crash.

Radiographic and the surgeon's operative report indicate that the victim had a congenital malformation[10] of the blood vessels near the heart, including anomalous architecture and a convoluted path through the thorax. The operative report describes the tissue of the aorta as *"friable"*[11], such that sutures to repair the tear would not hold. The victim had suffered a slight stroke approximately four months prior to the crash. It is apparent that the case vehicle's driver had significant pre-existing anatomical and medical problems that contributed to the fatal outcome.

The following material is taken from the book:

> The heart is suspended in the pericardial sac by the aorta, pulmonary artery, and superior vena cava. Any force that violently compresses the anterior chest and forces the heart downward may exert sufficient traction on the aorta to tear it transversely. The superior vena cava and the pulmonary artery are rarely torn. Aortic lacerations are most commonly seen in automobile accidents, less commonly in falls. In automobile accidents, the victim, usually the driver sustains the injury when the chest forcibly strikes the steering wheels, and the front seat passenger when the chest strikes the dashboard. Aortic lacerations may also occur in side impact crashes.
>
> Bursting rupture of the ascending portion and arch of the aorta occur when a violent force compresses the heart and intrapericardial portion of the ascending aorta, producing a sudden rise in intracardiac and intraluminal pressure which results in a transverse tear of the aorta immediately above the cusps of the aortic value. This usually involves

---

[10] Specifically, the operative summary indicated that: "The patient had an anomalous aortic arch with a long uncoiled ectatic ascending aorta which gave branches of the right and right *{common}* carotid and right subclavian separately from the aortic arch. The aorta then appeared to move towards the left and give separate origins of the left *{common}* carotid and left subclavian vessels. It then descended and took a tortuous course throughout the chest." Note: the standard architecture involves a right brachiocephalic artery branching from the arch and then splitting into the right common carotid artery and the right subclavian artery. In addition, the physician noted: "The patient seems to have some congenital anomaly with a double aortic arch with an atretic anterior segment. The posterior segment, however, was persistent and passed retrotracheal and retroesophageally." In a normal architecture the descending aorta passes anteriorly to the trachea and esophagus.

The following terms are defined in _____
atresia (a-tre'zha) - congenital absence or closure of a normal body orifice or tubular organ; ***aortic atresia*** - absence or closure of the aortic root orifice, a rare congenital anomaly in which the left ventricle is hypoplastic, oxygenated blood passing from the left into the right atrium through a septal defect, and the mixed venous and arterial blood passing from the pulmonary artery to the aorta by way of a patent ductus.
atretic (a-tret'ik) - without an opening; pertaining to or characterized by atresia.
ectatic (ek-tat'ik) - distended or stretched; distensible.
tortuous (tor'choo-as) - twisted; full of turns and twists.

[11] The following term is defined in _____
friable (fri'a-bal) - easily pulverized or crumbled.

DISCUSSION (CONTINUED)

only a portion of the aorta's circumference. Death rapidly ensues from severe hemorrhage. These injuries are associated with fractures of the upper ribs and sternum.

Most traumatic injuries of the aorta involve the descending portion just distal to the origin of the left subclavian artery. The arch of the aorta is anchored by the great vessels arising from the aortic arch, that is, the right innominate[12], left common carotid, and subclavian arteries, and the ligamentum arteriosum[13] (which connects the left pulmonary artery to the arch of the aorta). Partial or complete lacerations of the descending aorta occur at almost precisely the same location: immediately distal to the left subclavian artery, at the junction of the aortic arch and the descending aorta. The precise mechanism of this injury is not known. The relatively constant location of aortic lacerations, the relative fixation of the descending aorta just below the aortic isthmus[14], the relative fixation of the aortic arch by the vessels, and the constant association of the aortic laceration with deceleration injuries[15], such as automobile collisions, suggest that the abrupt deceleration of the body and resulting forceful compression of the anterior chest and underlying mediastinal structures causes the heart and great vessels to be jerked away from the posterior chest wall to which the thoracic aorta is attached. This traction on the ligament ductus arteriosus and descending aorta at its point of fixation is sufficient to lacerate the aorta immediately below the origin of the left subclavian artery.

In summary, the case vehicle's driver was an older gentleman, with anomalous aortic architecture, who experienced both belt loading forces and an air bag impact to his thorax, plus violent torque forces from the rapid clockwise rotation. Based on the available evidence, the impact with the air bag contributed to the laceration to the deteriorated tissue of his aortic arch. He received prompt medical attention and was triaged to an appropriate facility in a timely manner. His pre-existing anatomical and medical problems prevented successful intervention. A more robust individual could have survived this crash.

---

[12] Also called the brachiocephalic artery.

[13] The following term is defined in _____
ligamenta arterio'sum -- a short, thick, strong fibromuscular cord extending from the pulmonary artery to the arch of the aorta; it is the remains of the ductus arteriosus. Called also *ligament of Botallo*.

[14] The following terms are defined in _____
isthmus (is'mas) -- a narrow connection between two larger bodies or parts; a general term for such a connecting structure or region. ***isthmus of aorta*** -- a narrow portion of the aorta, especially noticeable in the fetus, at the point where the ductus arteriosus is attached.

[15] The following term is defined in
deceleration injury -- an injury sustained by sudden deceleration in the movement of the body, as in a motor vehicle accident; the brain is especially liable to such trauma.

Appendix A:

RECONSTRUCTION PROGRAM RESULTS:

WINSMASH
(DAMAGE ONLY ALGORITHM)

TRC VECTOR ANALYSIS ITERATIONS

WINSMASH
(DAMAGE ONLY ALGORITHM
-- INCLUDING
BARRIER EQUIVALENT SPEEDS)

T0071

U.S. Department of Transportation
National Highway Traffic Safety Administration

SMASH PROGRAM SUMMARY

(All Measurements In Metric)

BEST AVAILABLE

NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

Identifying Title

10	9628	01	__/__/__
Primary Sampling Unit	Case No.-Stratum	Accident Event Sequence No.	Date (Month, day, year) of Run

GENERAL INFORMATION

	VEHICLE 1	VEHICLE 2
NASS Vehicle Number	01	02
Year	1994	1990
Make	NISSAN	NUMMI - GEO
Model	MAXIMA	Prizm
Body Style	4D	4D
CDC	12FZEW2	12FZEW4
PDOF	⊖10°	⊖10°
Heading Angle	⊖170°	⊖340°

VEHICLE SPECIFICATIONS

	VEHICLE 1	VEHICLE 2
Wheelbase	104.3" 265 cm	95.7" 243 cm
Overall Length	187.6" 477 cm	170.7" 434 cm
Overall Width	69.3" 176 cm	65.2" 166 cm
Weight	1462 + 80 + 0 = 1542 kg	1053 + 70 + 0 = 1123 kg
	Curb (3224) Occupant(s) Cargo	Curb (2321 #) Occupant(s) Cargo
Engine Displacement	3.0 L	1.6 L
Drive System	FWD	FWD
Size	3	2
Stiffness	3	7

DAMAGE INFORMATION

	VEHICLE 1 (EST. FROM PHOTOS)	VEHICLE 2
Damage Known?		
Damage Length UEW ≈	150 cm	135 cm
Damage Offset	⊖25 cm	⊖35 cm
Crush Depth:		
Field L D	+14	+12
C1	___ cm	___ cm
C2	___ cm	___ cm
C3	___ cm	___ cm
C4	___ cm	___ cm
C5	___ cm	___ cm
C6	___ cm	___ cm

HS Form 435D (1/96)

SCENE INFORMATION

Rest and Impact Positions [ ] No [ ] Yes

VEHICLE 1			VEHICLE 2		
Rest Position	X	___ ___ ___ . ___ m	Rest Position	X	___ ___ ___ . ___ m
	Y	___ ___ ___ . ___ m		Y	___ ___ ___ . ___ m
	Heading Angle	___ ___ ___ °		Heading Angle	___ ___ ___ °
Impact Position	X	___ ___ ___ . ___ m	Impact Position	X	___ ___ ___ . ___ m
	Y	___ ___ ___ . ___ m		Y	___ ___ ___ . ___ m
	Heading Angle	___ ___ ___ °		Heading Angle	___ ___ ___ °
Slip Angle (-180 to +180)		___ ___ ___ °	Slip Angle (-180 to +180)		___ ___ ___ °

VEHICLE MOTION

Sustained Contact [ ] No [ ] Yes

VEHICLE 1

Vehicle Rotation [ ] No [ ] Yes

Rotation Stop Before Rest [ ] No [ ] Yes

End of Rotation Position X ___ ___ ___ . ___ m

Y ___ ___ ___ . ___ m

Heading Angle ___ °

Curved Path [ ] No [ ] Yes

Point on Path X . m Y . m

Rotation Direction [ ] None [ ] CW [ ] CCW

Rotation >360° [ ] No [ ] Yes

Sustained Contact [ ] No [ ] Yes

VEHICLE 2

Vehicle Rotation [ ] No [ ] Yes

Rotation Stop Before Rest [ ] No [ ] Yes

End of Rotation Position X ___ ___ ___ . ___ m

Y ___ ___ ___ . ___ m

Heading Angle ___ °

Curved Path [ ] No [ ] Yes

Point on Path X . m Y . m

Rotation Direction [ ] None [ ] CW [ ] CCW

Rotation >360° [ ] No [ ] Yes

FRICTION INFORMATION

Coefficient of Friction . ___ ___

Rolling Resistance Option 1

Vehicle 1 Rolling Resistance		Vehicle 2 Rolling Resistance	
LF	___ . ___ ___	LF	___ . ___ ___
RF	___ . ___ ___	RF	___ . ___ ___
LR	___ . ___ ___	LR	___ . ___ ___
RR	___ . ___ ___	RR	___ . ___ ___

IF THIS COMMON IMPACT WAS WITH A CDS VEHICLE *NOT IN TRANSPORT*, FILL IN THE INFORMATION BELOW.

Model Year: _____

Make: _____

Model: _____

VIN: _____

The Weight, CDC, Scene Data and Damage Information for this vehicle should be recorded above.

Complete and ATTACH the appropriate [illegible] damage sketch and dimensions to the form

General Information

TRC/IU Case Number 96-28

	Vehicle 1	Vehicle 2
Year:	1994	1990
Make:	Nissan	Geo
Model:	Maxima	Prizm
Body Style:	4S	4S
CDC:	12FZEW2	12FZEW4
Damaged Side:	Front	Front
PDOF:	-10°	10°
Heading Angle:	170°	335°

Vehicle Information

	Vehicle 1	Vehicle 2
Wheelbase:	265.0 cm	243.0 cm
Length:	477.0 cm	434.0 cm
Width:	176.0 cm	166.0 cm
Weight:	1542.0 kg	1123.0 kg
Center of Gravity:	228.1 cm	211.6 cm
Radius of Gyration:	143.1 cm	130.2 cm
D0:	102.2 sqrt(N)	99.2 sqrt(N)
D1:	7.3 sqrt(N)/cm	6.5 sqrt(N)/cm
Size Category:	3	2
Stiffness Category:	3	9

Vehicle 1: Used d0 and d1 values estimated from the vehicle size.

Vehicle 2: Used d0 and d1 values estimated from the vehicle size.

Damage Information

	Vehicle 1	Vehicle 2
Damage Length:	150.0 cm	135.0 cm
Damage Offset:	14.0 cm	12.0 cm
Field L - D:	25.0 cm	35.0 cm
C1:	0.0 cm	0.0 cm
C2:	21.4 cm	46.3 cm
C3:	21.4 cm	46.3 cm
C4:	42.8 cm	92.6 cm
C5:		
C6:		

Summary of Results Using Damage

Vehicle 1

	Speed Change (Damage)	
Total:	33.8 km/h	(21.0 m.p.h.)
Longitudinal:	-33.3 km/h	(-20.7 m.p.h.)
Latitudinal:	5.9 km/h	(+ 3.7 m.p.h.)
PDOF:	-10°	

Energy Dissipated:	53,628 Joules
Barrier Equivalent Speed:	27.5 km/h (17.1 m.p.h.)
Moment Arm of Principle Force:	62.0 cm (CW)
Change in Angular Velocity:	1.6 deg/seconds

Used d0 and d1 values estimated from the vehicle size.

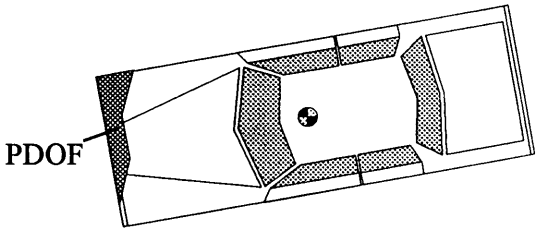
Vehicle 2

	Speed Change (Damage)	
Total:	46.4 km/h	(28.8 m.p.h.)
Longitudinal:	-45.7 km/h	(-28.4 m.p.h.)
Latitudinal:	-8.1 km/h	(- 5.0 m.p.h.)
PDOF:	10°	

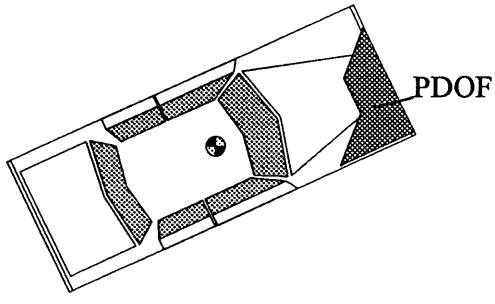
Energy Dissipated:	120,717 Joules
Barrier Equivalent Speed:	52.7 km/h (32.7 m.p.h.)
Moment Arm of Principle Force:	2.6 cm (CW)
Change in Angular Velocity:	0.1 deg/seconds

Used d0 and d1 values estimated from the vehicle size.

Damage



1994 Nissan Maxima 4S



1990 Geo Prizm 4S

CASE NUMBER IN9628

MISSING DATA

THE FOLLOWING DATA ARE NOT INCLUDED IN THIS CASE:

PAGE NUMBER(S)

11-13

TRC VECTOR ANALYSIS ITERATIONS

The TRC Vector Analysis program was used to determine the resultant theoretical Direction of Principal Force for both vehicles. Heading angles were estimated from the Police Crash Report's scene diagram and weights were obtained from original specifications, the default NASS CDS occupant weights (vehicle #2), and medical records (case vehicle). Based on our review of the available police photographs of each vehicle, this contractor estimates the Direction of Principal Forces as -20 degrees for the case vehicle and +10 degrees for vehicle #2 (in accordance with NASS, CDS protocol).

According to the Police Crash Report, the posted SPEED LIMIT is 56 km.p.h. (35 m.p.h.). According to the available police photographs, both drivers (particularly the driver of vehicle #2) steered left just prior to the impact. The Police Crash Report does not indicate whether or not any avoidance maneuvers were taken or report the presence of pre-crash skid marks. Based on witness statements given to the police, vehicle #2 was traveling at a higher rate of speed than the case vehicle. Because of the crash environment including the reported wet road surface, witness statements, and the fact that no pre-impact skid marks were noted on the Police Crash Report, this contractor believes that the case vehicle was most likely traveling about 56 km.p.h. (35 m.p.h.) prior to impact. Vehicle #2 was most likely traveling 64 km.p.h. (40 m.p.h.) at the time of impact.

Ten iterations involving vehicle #2's heading angle and speed are presented below. Vehicle #2's heading angle was estimated as between 335-350 degrees with a constant heading angle of 170 degrees for the case vehicle. Vehicle speeds were estimated as approximately 56-72 km.p.h. (35-45 m.p.h.) for vehicle #2 and 56 km.p.h. (35 m.p.h.) for the case vehicle. The program indicates that as vehicle #2's speed increases, the force colinearity vector hardly changes (i.e., at most one degree counterclockwise). Of greater importance is vehicle #2's heading angle. The program indicates that as vehicle #2's heading angle changes from approximately 12 o'clock (350 degrees) to 11 o'clock (335 degrees), the force colinearity vector rotates from 0 degrees toward -7 degrees for the case vehicle while moving between 0 and +9 degrees for vehicle #2. Iteration eight most closely resembles the estimated Direction of Principal Forces. However, it must be kept in mind that this program considers the mass of each vehicle as a single point and, therefore, does not account for the offset nature of this collision. In accordance with NASS, CDS protocol, the Direction of Principal Forces were assigned at -10 for the case vehicle and +10 for vehicle #2.

POLICE CRASH REPORT

BEST AVAILABLE

A UNIFORM TRAFFIC ACCIDENT REPORT

FATALITY

SHEET 1 OF 5

PHOTOS TAKEN ☒ YES ☐ NO — BY WHOM

LOCATION

Date of Accident	Day of Week	Time of Accident	Accident Reported By	Time of Notification	Time of Arrival
	M ☐1 T ☐2 W ☐3 Th ☐4 F ☒5 S ☐6 Sun ☐7	1520 HRS	1 ☒ State Police 2 ☐ City Police 3 ☐ Sheriff 4 ☐ Other	1536 HRS	1551 HRS

County	City or Town	Highway Classification
	☐ IN ☒ NEAR	1 ☐ Interstate 2 ☐ U S 3 ☒ WV 4 ☐ County 5 ☐ City 6 ☐ Other

Accident Occurred On	Route 1	Street 1	Code	If on Controlled Access Highway, Check One
		Or		1 ☐ Main Road 2 ☐ Main Road at Interchange
At Intersection With	Route 2	Street 2	Code	3 ☐ Entrance Ramp On (N S E W) Side 4 ☐ Exit Ramp On (N S E W) Side
		Or		

If Not at Intersection	Feet / Miles	Direction	Of	Street, Highway, Town Etc	Code
200	☒ Feet ☐ Miles	N ☒ S E W			

If Location Can Be Described More Precisely, Enter Here Special Reference:	Milepost	Tolerance

99-96

DRIVER 1

Driver's Full Name	Address	City	State

Date of Birth	Male / Female	Driver License Number	State	License Restrictions(s) Violated
	☒ Male ☐ Female			None

(15) Citation Number	Citation Charge
	Driving Left of Center

Driver Condition	Type Sobriety Test Given	Test Results	BAC
1 ☒ Normal 2 ☐ Sleepy 3 ☐ Asleep 4 ☐ Ill 5 ☐ Other 6 ☐ Unknown	None	Drinking: ☐ Yes ☐ No ☐ Refused Test Drugs: ☐ Yes ☐ No ☐ Refused Test	

Driver Action: 1 ☒ Going Straight Ahead; 2 ☐ Turning Right; 3 ☐ Turning Left; 4 ☐ U-Turning; 5 ☐ Changing Lanes; 6 ☐ Passing; 7 ☐ Parking; 8 ☐ Parked; 9 ☐ Backing; 10 ☐ Merging; 11 ☐ Slowing or Stopping; 12 ☐ Stopped in Traffic Lane; 13 ☐ Entering or Leaving Driveway; 14 ☐ Pulling Out from Parking Space; 15 ☐ Other

VEHICLE 1

Owner's Full Name	Address	City	State
☐ Same as Driver			

Year	Make	Model	Style	License Plate Number	State	Year	Serial Number
90	Chev.	Geo	Prism			96	

Odometer Reading	Direction Travel (If turning, enter direction BEFORE turn.)	On	Route / Street	Above
96,582	N ☒ S E W		☒ 1 ☐ 2	

Total Occupants of This Vehicle	Area(s) Damaged (Use Codes at Far Right)	Approximate Cost to Repair	
1	1,2,9	$ 5,000.00	☒ Total Loss

Auto Liability Insurance	Insurance Company
YES ☒ NO ☐	

Circle Point of Initial Impact (Circle Only One): 1, 2, 3, 4, 5, 6, 7, 8, 9, FRONT, REAR, 0 UNDERCARRIAGE

Contributing Circumstances (Check One or More):
1 ☐ No Improper Driving; 2 ☐ Exceeding Speed Limit; 3 ☐ Exceeding Safe Speed; 4 ☐ Changing Lanes Improperly; 5 ☐ Following Too Closely; 6 ☐ Disregarded Traffic Control; 7 ☐ Did Not Have Right of Way; 8 ☒ Failure to Maintain Control; 9 ☐ Driving Under Minimum Speed; 10 ☐ No Signal or Improper Signal; 11 ☐ Turning Improperly; 12 ☐ Passing Improperly; 13 ☐ Parking Improperly; 14 ☐ Backing Improperly; 15 ☐ Avoiding Animal or Vehicle; 16 ☐ Distraction Inside Vehicle; 17 ☐ Walking Violation; 18 ☐ Driver Under Influence; 19 ☐ Pedestrian Under Influence; 20 ☐ Slippery Pavement; 21 ☐ Other Roadway Defects; 22 ☐ Previous Accident; 23 ☐ Mech. Defect Code ____ Special Study No(s) ____

VEHICLE TOWED TO: ____

DRIVER 2

Driver's Full Name	Address	City	State

Date of Birth	Male / Female	Driver License Number	State	License Restrictions(s) Violated
	☒ Male ☐ Female			None

(71) Citation Number	Citation Charge
N/A	

Driver Condition	Type Sobriety Test Given	Test Results	BAC
1 ☒ Normal 2 ☐ Sleepy 3 ☐ Asleep 4 ☐ Ill 5 ☐ Other 6 ☐ Unknown	None	Drinking: ☐ Yes ☐ No ☐ Refused Test Drugs: ☐ Yes ☐ No ☐ Refused Test	

Driver Action: 1 ☒ Going Straight Ahead; 2 ☐ Turning Right; 3 ☐ Turning Left; 4 ☐ U-Turning; 5 ☐ Changing Lanes; 6 ☐ Passing; 7 ☐ Parking; 8 ☐ Parked; 9 ☐ Backing; 10 ☐ Merging; 11 ☐ Slowing or Stopping; 12 ☐ Stopped in Traffic Lane; 13 ☐ Entering or Leaving Driveway; 14 ☐ Pulling Out from Parking Space; 15 ☐ Other

VEHICLE 2

Owner's Full Name	Address	City	State
☒ Same as Driver			

Year	Make	Model	Style	License Plate Number	State	Year	Serial Number
94	Nissan	Maxima	4 Dr.			97	

Odometer Reading	Direction Travel (If turning, enter direction BEFORE turn.)	On	Route / Street	Above
53,915	N S ☒ E W		☒ 1 ☐ 2	

Total Occupants of This Vehicle	Area(s) Damaged (Use Codes at Far Right)	Approximate Cost to Repair	
1	1, 2	$ 4,000.00	☒ Total Loss

Auto Liability Insurance	Insurance Company
YES ☒ NO ☐	

Circle Point of Initial Impact (Circle Only One): 1, 2, 3, 4, 5, 6, 7, 8, 9, FRONT, REAR, 0 UNDERCARRIAGE

Contributing Circumstances (Check One or More):
1 ☒ No Improper Driving; 2 ☐ Exceeding Speed Limit; 3 ☐ Exceeding Safe Speed; 4 ☐ Changing Lanes Improperly; 5 ☐ Following Too Closely; 6 ☐ Disregarded Traffic Control; 7 ☐ Did Not Have Right of Way; 8 ☐ Failure to Maintain Control; 9 ☐ Driving Under Minimum Speed; 10 ☐ No Signal or Improper Signal; 11 ☐ Turning Improperly; 12 ☐ Passing Improperly; 13 ☐ Parking Improperly; 14 ☐ Backing Improperly; 15 ☐ Avoiding Animal or Vehicle; 16 ☐ Distraction Inside Vehicle; 17 ☐ Walking Violation; 18 ☐ Driver Under Influence; 19 ☐ Pedestrian Under Influence; 20 ☐ Slippery Pavement; 21 ☐ Other Roadway Defects; 22 ☐ Previous Accident; 23 ☐ Mech. Defect Code ____ Special Study No(s) ____

VEHICLE TOWED TO: ____

BEST AVAILABLE

OTHER DAMAGE

DAMAGED PROPERTY OTHER THAN VEHICLES: None

☐ ON PAVEMENT OR _____ FEET [N] [S] [E] [W] OF PAVEMENT EDGE

Approx Damage $

OWNER'S NAME

ADDRESS [redacted] CITY [redacted]

CODES

INJURY CLASSIFICATION
K—Killed
A—Bleeding Wound, Distorted Member, or Had to Be Carried from Scene
B—Bruises, Abrasions, Swelling, Limping, Etc.
C—No Visible Injury But Complaint of Pain or Momentary Unconsciousness
O—Not Injured

FIRST AID BY
1-None
2-Police
3-Emergency Medical Technician
4-Doctor
5-Rescue Squad
6-Helicopter Crew
7-Paramedic
8-Unknown

SEATING
[1] [2] [3]
[4] [5] [6]
[7] [8] [9]
M—Motorcycle
B—Pedalcycle
P—Pedestrian
O—Other
NOTE: Positions 7, 8 and 9 Indicate Rear of Station Wagon

SEAT BELTS [redacted]
1—None Installed
2—Not Used
3—Lap Belt Only Used
4—Lap and Shoulder Belts Used
5—Unknown
6—Child Safty Seat

EJECTED
1—No
2—Yes
3—Partially
4—Unknown

ACCIDENT

HAZARDOUS CARGO
X O—No
___ 1—Yes
___ 2—Unknown

EXTRICATION [redacted]
X O—Not Extricated
___ 1—Extricated
___ 2—Unknown

FIRE OCCURRENCE
X O—No Fire
___ 1—Fire Occurred in Vehicle During Accident

PERSONS INVOLVED

EST. TIME EMS WAS CALLED	EST. TIME EMS ARRIVED	EST. TIME EMS DEPARTED
1535 HRS.	1539 HRS.	1559 HRS.

	NAME	ADDRESS	AGE	SEX	VEH. NO.	[redacted]	FIRST [redacted]	SEAT-ING	SEAT BELTS	EJEC-TED
DRIVER 1: →			18	M	1	A	5	1	5	1
DRIVER 2: →			71	M	2	K	5	1	5	1
	[redacted]	[redacted]								

INJURED TAKEN TO

INJURED TAKEN BY [redacted]

ACC. TYPE

1 ☐ Rear End
2 ☒ Head On
3 ☐ Same Direction Sideswipe
4 ☐ Opp Direction Sideswipe

5 ☐ 6 ☐ LEFT & RIGHT TURN
LEFT TURNS
7 ☐ 8 ☐ 9 ☐ 10 ☐ 11 ☐ 12 ☐
RIGHT TURNS
13 ☐ 14 ☐ 15 ☐ 16 ☐ 17 ☐

SINGLE VEHICLE ACCIDENT
ACCIDENT OCCURRED ☐ ON ☐ OFF PAVEMENT
18 ☐ Hit Fixed Object
19 ☐ Hit Pedestrian
20 ☐ Hit Animal
21 ☐ Hit Parked Vehicle
22 ☐ Hit Train
23 ☐ Ran Off Road
24 ☐ Overturned
25 ☐ Other

WITNESS

NAME OF WITNESS	ADDRESS	CITY	STATE	AGE	SEX
				46	M
				48	F

PED

PEDESTRIAN ACTION:
1 ☐ Crossing at Intersection
2 ☐ Crossing Not at Intersection
3 ☐ Walking on Pavement With Traffic
4 ☐ Walking on Pavement Facing Traffic
5 ☐ Standing on Pavement
6 ☐ Playing on Pavement
7 ☐ Working on Pavement
8 ☐ Other on Pavement
9 ☐ Not on Pavement

Clothing: ☐ Light ☐ Dark

ENVIRONMENT

LIGHT
1 ☒ Daylight
2 ☐ Dark
3 ☐ Dark, Artificial Lights
4 ☐ Dusk
5 ☐ Dawn

WEATHER
1 ☐ Clear
2 ☐ Cloudy
3 ☒ Raining
4 ☐ Fog, Smog
5 ☐ Snowing or Sleeting
6 ☐ Hailing

ROADWAY SURFACE
1 ☐ Dry
2 ☒ Wet
3 ☐ Snow, Ice
4 ☐ Muddy
5 ☐ Hazardous Material

ROAD TYPE
1 [redacted]
2 ☐ Concrete
3 ☐ Brick
4 ☐ Gravel
5 ☐ Dirt
6 ☐ Other

TRAFFIC CONTROL
1 ☐ Stop Sign
2 ☐ Traffic Signal
3 ☐ Yield Sign
4 ☐ Officer, Flagman
5 ☐ RR Gates, Signals
6 ☒ None
7 ☐ Other ☐ Yes ☐ No FUNCTIONING?

VISION OBSCURED BY
1 ☒ Not Obscured
2 ☐ Rain, Snow, Ice on Windshield
3 ☐ Trees, Bushes
4 ☐ Building(s)
5 ☐ Embankment
6 ☐ Signboard
7 ☐ Hillcrest
8 ☐ Parked Vehilce(s)
9 ☐ Moving Vehilce(s)
10 ☐ Blinding Headlights
11 ☐ Blinding Sunlight
12 ☐ Other
13 ☐ Unknown

WERE LANES CLEARLY MARKED? ☒ YES ☐ NO

NUMBER OF LANES 2

NAME OF INVESTIGATING OFFICER | UNIT NUMBER | POLICE AGENCY

The date in this report reflects my best judgment and knowledge.

INVESTIGATING OFFICER'S SIGNATURE | DATE 9/6

STATEMENTS OF INVOLVED DRIVERS AND WITNESSES (IF AVAILABLE)

Statement of

I was going north on to pick up a friend at I was making a curve and this car was coming at me in my lane. This car was going down the hill. I swerved to miss that car. I missed him, but he kept going down the hill. Then before I could get back to my lane, I collided with another car coming down the hill. The guy I hit did nothing wrong. The only one who did something wrong was the first guy that was in my lane.

This statement is true and correct to the best of my knowledge.

/s/ Unable to Sign

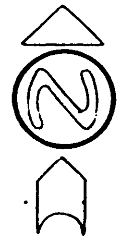
ATTACH ADDITIONAL STATEMENT SHEETS AS NEEDED

BEST AVAILABLE

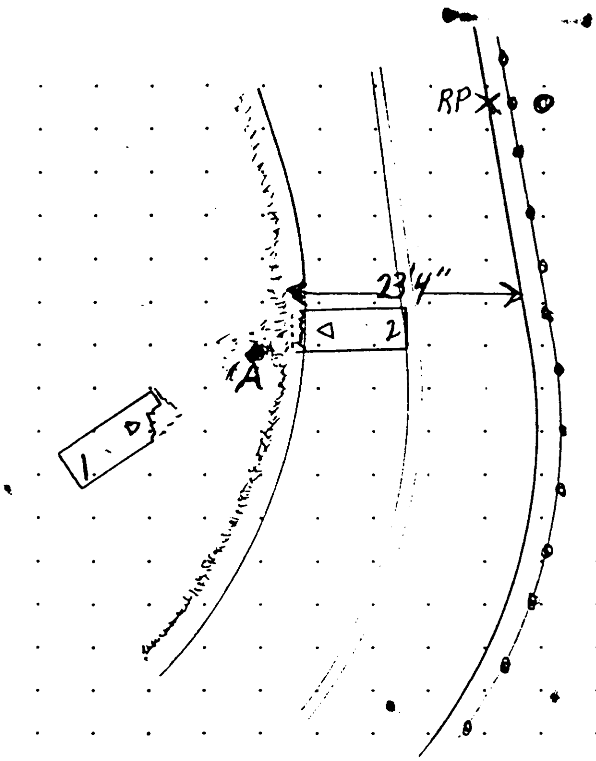
COLLISION DIAGRAM

DRAW SCENE AS OBSERVED, INCLUDING ROADWAY LAYOUT, VEHICLES, PEDESTRIAN OR OBJECT STRUCK, TRAFFIC CONTROLS, SKIDMARKS, ETC
IMPORTANT: NUMBER THE VEHICLES ACCORDING TO THE VEHICLE NUMBERS ON THE FRONT PAGE

DRAW ARROW POINTING NORTH IN CIRCLE



RP is 8 Feet West of C+P Pole ON
The [redacted] AT The Road way Edge



From RP Coordinates

Point	N-S	E-W
RR #1	21 6/S	11 3/W
RF #1	21 7/S	23 3/W
LR #2	41 9/S	42 8/W
LF #2	33 11/S	34 11/W
Debris + Impact A	28 4/S	21 9/W

Measured By:
Drawn By: Sgt

NOT DRAWN TO SCALE

NARRATIVE

DESCRIBE WHAT HAPPENED (Refer to Vehicles by Number)

Driver #1 was traveling North on Driver #2 was traveling South on Based on eyewitness' statements, Vehicle #1 was traveling at a high rate of speed through the turns at As Vehicle #1 approached it went out of control, crossed into the southbound lane of traffic, nearly striking two other vehicles. Vehicle #1 then impacted Vehicle #2 head on in the southbound lane of traffic.

AM.WVWSP0004. SPTR.
TXT
ES 235 SP TRAFFIC RECORDS
TO
REF FATAL CRASH ON
REL

ATTN:

PLEASE ADVISE THE FOLLOWING:

1-WAS THERE A YELLOW ~~WARNING SIGN POSTED~~ PRIOR TO THE CURVE INDICATING THE SAFE SPEED OR DISPLAYING A CURVE AHEAD? YES
2-CHECK WITH ~~THE RESCUE SQUAD THAT ASSISTED~~ AT THE SCENE AND SEE IF EITHER DR WERE WEARING A SAFETY BELT OR NOT. IF SO, ADVISE THE NAME & TYPE BELT WORN. -Cpl/Snowden Yes - Type Unk.
3-DO YOU HAVE THE BLOOD TEST RESULTS FOR THE SUPPLEMENT INDICATED AND EVIDENTIAL TEST WAS PERFORMED. ADVISE THE BAC & DRUG SCREEN RESULTS. ADVISE IF TESTED ON BLOOD OR URINE. .01 No DRUG TEST

*** REPORT DATA TO VIA OR PHONE: ***

AUTH FATAL ACCIDENT REPORTING SYSTEM ANALYST 12:42
IN SPTR
OUT SPTRP 0

FATAL ACCIDENT SUPPLEMENT

BEST AVAILABLE

COUNTY _____ DETACHMENT _____

DRIVER #1 _____

DRIVER #2 _____

OTHER _____

CORRECTIVE LENSES OR CONTACTS

DRIVER: 2

DRIVER: _____

HAZARDOUS CARGO

VEH # N/A

VEH # _____

FIRE OCCURRENCE

VEH # N/A

VEH # _____

POSTED SPEED LIMIT: 35

ROADWAY FLOW:

[ ] DIVIDED HIGHWAY
(IF YES, CHECK ONE OF THE FOLLOWING)

[ ] MEDIAN STRIP
[ ] GUARDRAIL
[ ] OTHER BARRIER

[ ] NOT PHYSICALLY DIVIDED

[ ] ONE WAY TRAFFICWAY

ALIGNMENT (CHECK ONE)

[X] STRAIGHT

[ ] CURVE

ROAD PROFILE (CHECK ONE)

[ ] LEVEL [X] GRADE

[ ] HILLCREST [ ] SAG

TRAVEL SPEED

	ACTUAL	ESTIMATED	UNKNOWN
DRIVER #1:	_____	_____	X
DRIVER #2:	_____	_____	_____

EMS ARRIVAL TIME AT HOSPITAL 1608
(IF MORE THAN ONE UNIT RESPONDS, LIST TIME FOR FIRST UNIT ARRIVING AT HOSPITAL)

HELMET USAGE (MOTORCYCLIST/PEDALCYCLIST) N/A

[ ] YES [ ] NO

CHILD SAFETY SEAT N/A

[ ] YES [ ] NO [ ] IMPROPERLY USED

CRASH AVOIDANCE MANEUVER (MARK FOR EACH VEHICLE)

NO AVOIDANCE MANEUVER	VEHICLE # _____	BRAKING (SKIDMARKS EVIDENT)	VEHICLE # _____
STEERING (EVIDENCE OR STATED)	VEHICLE # _____	BRAKING (NO SKIDMARKS, DRIVER STATED)	VEHICLE # _____
STEERING & BRAKING (EVIDENCE OR STATED)	VEHICLE # 1, 2	OTHER AVOIDANCE MANEUVER	VEHICLE # _____

METHOD OF ALCOHOL/DRUG DETERMINATION
(LIST NAME, VEHICLE # AND TEST FOR ALL INDIVIDUALS INVOLVED)

NAME: VEH #: 2	NAME: VEH #:
[X] EVIDENTIAL TEST (BREATH, BLOOD OR URINE)	[ ] EVIDENTIAL TEST (BREATH, BLOOD OR URINE)
[ ] PBT	[ ] PBT
[ ] FIELD SOBRIETY TESTING	[ ] FIELD SOBRIETY TESTING
[ ] OBSERVATION	[ ] OBSERVATION
[ ] DRUG USE SUSPECTED	[ ] DRUG USE SUSPECTED

RECEIVED

TRAFFIC RECORDS

EJECTION PATH N/A
LIST NAME, VEHICLE AND PATH OF THOSE EJECTED

NAME: VEH #:	NAME: VEH #:
[ ] SIDE DOOR	[ ] SIDE DOOR
[ ] BACK WINDOW	[ ] BACK WINDOW
[ ] WINDSHIELD	[ ] WINDSHIELD
[ ] BACK DOOR/TAILGATE	[ ] BACK DOOR/TAILGATE
[ ] ROOF OPENING (SUNROOF/CONVERTIBLE TOP DOWN)	[ ] ROOF OPENING (SUNROOF/CONVERTIBLE TOP DOWN)
[ ] ROOF OPENING (CONVERTIBLE TOP UP)	[ ] ROOF OPENING (CONVERTIBLE TOP UP)
[ ] OTHER PATH (BED OF PICKUP TRUCK)	[ ] OTHER PATH (BED OF PICKUP TRUCK)

AIR BAG FUNCTION

[X] DEPLOYED VEHICLE # 2 [X] DRIVER SIDE [ ] PASSENGER SIDE

[ ] NON-DEPLOYED

EXTRICATION: (JAWS-OF-LIFE, SAWS, AIR BAGS, ETC.) None

VEHICLE #: _____ NAME: _____ DATE OF DEATH: _____ TIME OF DEATH: _____

VEHICLE #: _____ NAME: _____ DATE OF DEATH: _____ TIME OF DEATH: _____

VEHICLE #: _____ NAME: _____ DATE OF DEATH: _____ TIME OF DEATH: _____

SEND ORIGINAL TO: TRAFFIC RECORDS SECTION (NO COPIES NEEDED)

TRANSPORTATION RESEARCH CENTER

Indiana University
Bloomington, Indiana 47403-1599

REMOTE AIR BAG REPORT

NASS CDS FORMS AND MEDICAL RECORDS

CASE NO. - 96-28
FLEET - PRIVATE VEHICLE
LOCATION -
ACCIDENT DATE -

Submitted By:

Associate Scientist
and

Associate Scientist

Revised Submission:

Contract Number:

Prepared for:

U.S. Department of Transportation
National Highway Traffic Safety Administration
National Center for Statistics and Analysis
Washington, D.C. 20590-0003

U.S. Department of Transportation
National Highway Traffic Safety Administration

ACCIDENT FORM

NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number: 10
2. Case Number - Stratum: 9628

IDENTIFICATION

3. Number of General Vehicle Forms Submitted: 02
4. Date of Accident (Month,Day,Year): ____ ____ 1996
5. Time of Accident: 1520

Code reported military time of accident.

NOTE: Midnight = 2400
Unknown = 9999

SPECIAL STUDIES - INDICATORS

Check (✓) each special study (SS15-SS18 below) that has been completed; code 1 for the checked special studies and 0 for the special studies not checked.

6. ___ SS15 Administrative Use: 0
7. ___ SS16 Pedestrian Crash Data Study: 0
   (Data for this special study available in a separate file.)
8. ___ SS17 Impact Fires: 0
9. ___ SS18 Unsafe Driver Actions: 0
10. ___ SS19 Run Off Road: 0

NUMBER OF EVENTS

11. Number of Recorded Events in This Accident: 01

Code the number of events which occurred in this accident.

ACCIDENT EVENTS

For each event that occurred in the accident, code the lowest numbered vehicle in the left columns and the other involved vehicle or object in the right columnns.

Accident Event Sequence Number	Vehicle Number	Class Of Vehicle	General Area of Damage	Vehicle Number or Object Contacted	Class Of Vehicle	General Area of Damage
12. 01	13. 01	14. 03	15. F	16. 02	17. 01	18. F
19. 02	20.	21.	22.	23.	24.	25.
26. 03	27.	28.	29.	30.	31.	32.
33 04	34.	35.	36.	37.	38.	39.
40. 05	41.	42.	43.	44.	45.	46.

IF GREATER THAN FIVE EVENTS, CONTINUE CODING ON THE ACCIDENT EVENT SUPPLEMENT

CODES FOR CLASS OF VEHICLE

CV: 104.3 ⇒ 265

(00) Not a motor vehicle
(01) Subcompact/mini (wheelbase < 254 cm)
(02) Compact (wheelbase ≥ 254 but < 265 cm)
(03) Intermediate (wheelbase ≥ 265 but < 278 cm)
(04) ~~Full~~ size (wheelbase ≥ 278 but < 291 cm)
(05) Largest (wheelbase ≥ 291 cm)
(09) Unknown passenger car size
(14) Compact utility vehicle
(15) Large utility vehicle (≤ 4,536 kgs GVWR)
(16) Utility station wagon (≤ 4,536 kgs GVWR)
(19) Unknown utility type
(20) Minivan (≤ 4,536 kgs GVWR)
(21) Large van (≤ 4,536 kgs GVWR)
(24) Van Based school bus (≤ 4,536 kgs GVWR)
(28) Other van type (≤ 4,536 kgs GVWR)
(29) Unknown van type (≤ 4,536 kgs GVWR)
(30) Compact pickup truck (≤ 4,536 kgs GVWR)

V2 : 95.7 ⇒ 243

(31) Large pickup truck (≤ 4,536 kgs GVWR)
(38) Other pickup truck (≤ 4,536 kgs GVWR)
(39) Unknown pickup truck type (≤ 4,536 kgs GVWR
(45) Other light truck (≤ 4,536 kgs GVWR)
(48) ~~Unknown light truck type (≤ 4,536 kgs GVWR)~~
(49) Unknown light vehicle type
(50) School bus (excludes van based)(>4,536 kgs GVWR)
(58) Other bus (> 4,536 kgs GVWR)
(59) Unknown bus type
(60) Truck (> 4,536 kgs GVWR)
(67) Tractor without trailer
(68) Tractor-trailer(s)
(78) Unknown medium/heavy truck type
(79) Unknown light/medium/heavy truck type
(80) Motored cycle
(90) Other vehicle
(99) Unknown

CODES FOR GENERAL AREA OF DAMAGE (GAD)

CDS APPLICABLE AND OTHER VEHICLES

(0) Not a motor vehicle
(N) Noncollision
(F) Front
(R) Right side
(L) Left side
(B) Back
(T) Top
(U) Undercarriage
(9) Unknown

TDC APPLICABLE VEHICLES

(0) Not a motor vehicle
(N) Noncollision
(F) Front
(R) Right side
(L) Left side
(B) Back of unit with cargo area (rear of trailer or straight truck)
(D) Back (rear of tractor)
(C) Rear of cab
(V) Front of cargo area
(T) Top
(U) Undercarriage
(9) Unknown

CODES FOR VEHICLE NUMBER OR OBJECT CONTACTED

(01-30) — Vehicle Number

Noncollision
(31) Overturn — rollover (excludes end-over-end)
(32) Rollover — end-over-end
(33) Fire or explosion
(34) Jackknife
(35) Other intraunit damage (specify): _____
(36) Noncollision injury
(38) Other noncollision (specify): _____
(39) Noncollision — details unknown

Collision With Fixed Object
(41) Tree (≤ 10 cm in diameter)
(42) Tree (> 10 cm in diameter)
(43) Shrubbery or bush
(44) Embankment
(45) Breakaway pole or post (any diameter)

Nonbreakaway Pole or Post
(50) Pole or post (≤ 10 cm in diameter)
(51) Pole or post (> 10 cm but ≤ 30 cm in diameter)
(52) Pole or post (> 30 cm in diameter)
(53) Pole or post (diameter unknown)

(54) Concrete traffic barrier
(55) Impact attenuator
(56) Other traffic barrier (includes guardrail) (specify): _____
(57) Fence
(58) Wall
(59) Building
(60) Ditch or culvert
(61) Ground
(62) Fire hydrant
(63) Curb
(64) Bridge
(68) Other fixed object (specify): _____
(69) Unknown fixed object

Collision with Nonfixed Object
(70) Passenger car, light truck, van, or other vehicle not in-transport
(71) Medium/heavy truck or bus not in-transport
(72) Pedestrian
(73) Cyclist or cycle
(74) Other nonmotorist or conveyance _____
(75) Vehicle occupant
(76) Animal
(77) Train
(78) Trailer, disconnected in transport
(79) Object fell from vehicle in-transport
(88) Other nonfixed object (specify): _____
(89) Unknown nonfixed object

(98) Other event (specify): _____
(99) Unknown event or object

NASS CDS GENERAL VEHICLE FORM: CASE VEHICLE

U.S. Department of Transportation
National Highway Traffic Safety Administration

GENERAL VEHICLE FORM

NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number: 10
2. Case Number - Stratum: 9628
3. Vehicle Number: 01

VEHICLE IDENTIFICATION

4. Vehicle Model Year: 94
   Code the last two digits of the model year
   (99) Unknown
5. Vehicle Make (specify): 35
   NISSAN
   Applicable codes are found in your NASS Data Collection, Coding and Editing Manual.
   (99) Unknown
6. Vehicle Model (specify): 039
   MAXIMA
   Applicable codes are found in your NASS Data Collection, Coding and Editing Manual.
   (999) Unknown
7. Body Type: 04
   Note: Applicable codes may be found on the back of this page.
8. Vehicle Identification Number
   JN1HJ01F9RT- - - - - -
   1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17
   Left justify; Slash zeros and letter Z (0 and Z)
   No VIN—Code all zeros
   Unknown—Code all nines
9. Vehicle Special Use (This Trip): 0
   (0) No special use
   (1) Taxi
   (2) Vehicle used as school bus
   (3) Vehicle used as other bus
   (4) Military
   (5) Police
   (6) Ambulance
   (7) Fire truck or car
   (8) Other (specify): _____
   (9) Unknown

OFFICIAL RECORDS

10. Police Reported Vehicle Disposition: 1
    (0) Not towed due to vehicle damage
    (1) Towed due to vehicle damage
    (9) Unknown
11. Police Reported Travel Speed: 999
    Code to the nearest kmph (NOTE: 000 means less than 0.5 kmph)
    (160) 159.5 kmph and above
    (999) Unknown
    __ __ mph X 1.6093 = __ __ __ kmph
12. Speed Limit: 056
    (000) No statutory limit
    Code posted or statutory speed limit in kmph
    (999) Unknown
    35 mph X 1.6093 = 56 kmph
13. Police Reported Alcohol Presence For Driver: 0
    (0) No alcohol present
    (1) Yes alcohol present
    (7) Not reported
    (8) No driver present
    (9) Unknown
14. Alcohol Test Result For Driver: 02
    Code actual value (decimal implied before first digit—0.xx)
    (95) Test refused
    (96) None given
    (97) AC test performed, results unknown
    (98) No driver present
    (99) Unknown Initial
    Source:
15. Police Reported Other Drug Presence For Driver: 0
    (0) No other drug(s) present
    (1) Yes other drug(s) present
    (7) Not reported
    (8) No driver present
    (9) Unknown
16. Other Drug Specimen Test Result For Driver: 2
    (0) No specimen test given
    (1) Drug(s) not found in specimen
    (2) Drug(s) found in specimen, (specify): Opiate (Unconfirmed)
    (3) Specimen test given, results unknown or not obtained [Possibly a result of medication]
    (8) No driver present
    (9) Unknown if specimen test given
17. Driver's Zip Code
    (00001) Driver not a resident of U.S. or territories
    43935 Code actual 5-digit zip code
    (99998) No driver present
    (99999) Unknown ZIP Directory
18. Driver's Race/Ethnic Origin: 1
    (1) White (non-Hispanic)
    (2) Black (non-Hispanic)
    (3) White (Hispanic)
    (4) Black (Hispanic)
    (5) American Indian, Eskimo or Aleut
    (6) Asian or Pacific Islander
    (7) Other (specify): _____
    (8) No driver present
    (9) Unknown

CODES FOR BODY TYPE

CDS APPLICABLE VEHICLES

Automobiles

(01) Convertible (excludes sun-roof, t-bar)
(02) 2-door sedan, hardtop, coupe
(03) 3-door/2-door hatchback
(04) 4-door sedan, hardtop
(05) 5-door/4-door hatchback
(06) Station wagon (excluding van and truck based)
(07) Hatchback, number of doors unknown
(08) Other automobile type (specify):

_____

(09) Unknown automobile type

Automobile Derivatives

(10) Auto based pickup (includes El Camino, Caballero, Ranchero, Brat, and Rabbit pickup)
(11) Auto based panel (cargo station wagon, auto based ambulance/hearse)
(12) Large limousine - more than four side doors or stretched chassis
(13) Three-wheel automobile or automobile derivative

Utility Vehicles (≤ 4,536 kgs GVWR)

(14) Compact utility (Jeep CJ-2 - CJ-7, Scrambler, Golden Eagle, Renegade, Laredo, Wrangler, Cherokee [84 and after], Dispatcher, Raider, Bronco II, Bronco [76 and before], Explorer, S-10 Blazer, Geo Tracker, Bravada, S-15 Jimmy, Thing, Pathfinder, Trooper, Trooper II, Rodeo, Amigo, Navajo, 4-Runner, Montero, Passport, Samurai, Sidekick, Rocky)
(15) Large utility (includes Jeep Cherokee [83 and before], Ramcharger, Trailduster, Bronco-fullsize [78 and after], fullsize Blazer, fullsize Jimmy, Hummer, Landcruiser, Rover, Scout, Yukon)
(16) Utility station wagon (Chevy Suburban, GMC Suburban, Travelall, Grand Wagoneer, includes suburban limousine)
(19) Utility, unknown body type

Van Based Light Trucks (≤ 4,536 kgs GVWR)

(20) Minivan (Town and Country, Caravan, Grand Caravan, Voyager, Grand Voyager, Mini-Ram, Vista, Aerostar, Windstar, Villager, Lumina APV, Trans Sport, Silhouette, Astro, Safari, Toyota Van, Toyota Minivan, Previa, Nissan Minivan, Quest, Mitsubishi Minivan, Expo Wagon, Vanagon/Camper.)
(21) Large van (B150-B350, Sportsman, Royal, Maxiwagon, Ram, Tradesman, Voyager [83 and before], E150-E350, Econoline, Clubwagon, Chateau, G10-G30, Chevy Van, Beauville, Sport Van, G15-G35, Rally Van, Vandura.)
(22) Step van or walk-in van (≤ 4,536 kgs GVWR)
(23) Van based motorhome (≤ 4,536 kgs GVWR)
(24) Van based school bus (≤ 4,536 kgs GVWR)
(25) Van based other bus (≤ 4,536 kgs GVWR)
(28) Other van type (Hi-Cube Van, Kary) (specify):

_____

(29) Unknown van type

Light Conventional Trucks (Pickup style cab, ≤ 4,536 kgs GVWR)

(30) Compact pickup (D50, Colt P/U, Ram 50, Dakota, Arrow Pickup [foreign], Ranger, Courier, S-10 , T-10, LUV, S-15, T-15, Sonoma, Datsun/Nissan Pickup, P'up, Mazda Pickup, Toyota Pickup, Mitsubishi Pickup)
(31) Large Pickup (Jeep Pickup, Comanche, Ram Pickup, D100-D350, W100-W350, F100-F350, C10-C35, K10-K35, R10-R35, V10-V35, Silverado, Sierra, R100-R500, T100)
(32) Pickup with slide-in camper
(33) Convertible pickup
(39) Unknown pickup style light conventional truck type

Other Light Trucks (≤ 4,536 kgs GVWR)

(40) Cab chassis based (includes rescue vehicles, light stake, dump, and tow truck)
(41) Truck based panel
(42) Light truck based motorhome (chassis mounted)
(45) Other light conventional truck type
(48) Unknown light truck type
(49) Unknown light vehicle type (automobile, utility, van, or light truck)

OTHER VEHICLES

Buses (Excludes Van Based)

(50) School bus (designed to carry students, not cross country or transit)
(58) Other bus type (e.g., transit, intercity, bus based motorhome) (specify):

_____

(59) Unknown bus type

Medium/Heavy Trucks (> 4,536 kgs GVWR)

(60) Step van (> 4,536 kgs GVWR)
(61) Single unit straight truck (4,536 kgs < GVWR ≤ 8,845 kgs)
(62) Single unit straight truck (8,845 kgs < GVWR ≤ 11,793 kgs)
(63) Single unit straight truck (> 11,793 kgs GVWR)
(64) Single unit straight truck, GVWR unknown
(65) Medium/heavy truck based motorhome
(67) Truck-tractor with no cargo trailer
(68) Truck-tractor pulling one trailer
(69) Truck-tractor pulling two or more trailers
(70) Truck-tractor (unknown if pulling trailer)
(78) Unknown medium/heavy truck type
(79) Unknown truck type (light/medium/heavy)

Motored Cycles (Does Not Include All-Terrain Vehicles/Cycles)

(80) Motorcycle
(81) Moped (motorized bicycle)
(82) Three-wheel motorcycle or moped
(88) Other motored cycle (minibike, motorscooter) (specify):_____
(89) Unknown motored cycle type

Other Vehicles

(90) ATV (All-Terrain Vehicle) and ATC (All-Terrain Cycle)
(91) Snowmobile
(92) Farm equipment other than trucks
(93) Construction equipment other than trucks
(97) Other vehicle type
(99) Unknown body type

PRECRASH ENVIRONMENTAL DATA

19. Relation To Interchange Or Junction — Ø
(0) Non-interchange area and non-junction
(1) Interchange area related

Non-Interchange junctions
(2) Intersection related
(3) Driveway, alley access related
(4) Other junction (specify)
_____
(5) Unknown type of junction

(9) Unknown

20. Trafficway Flow — Ø
(0) Not physically divided (two way traffic)
(1) Divided trafficway-median strip without positive barrier
(2) Divided trafficway-median strip with positive barrier
(3) One way traffic
(9) Unknown

21. Number Of Travel Lanes — 2
(1) One
(2) Two
(3) Three
(4) Four
(5) Five
(6) Six
(7) Seven or more
(9) Unknown

22. Roadway Alignment — 2
(1) Straight
(2) Curve right
(3) Curve left
(9) Unknown

23. Roadway Profile — 1
(1) Level
(2) Uphill grade (>2%)
(3) Hill crest
(4) Downhill grade (>2%)
(5) Sag
(9) Unknown

24. Roadway Surface Type — 2
(1) Concrete
(2) Bituminous (asphalt)
(3) Brick or block
(4) Slag, gravel, or stone
(5) Dirt
(8) Other (specify): _____
(9) Unknown

25. Roadway Surface Condition — 2
(1) Dry
(2) Wet
(3) Snow or slush
(4) Ice
(5) Sand, dirt, or oil
(8) Other (specify): _____
(9) Unknown

26. Light Conditions — 1
(1) Daylight
(2) Dark
(3) Dark, but lighted
(4) Dawn
(5) Dusk
(9) Unknown

27. Atmospheric Conditions — 1
(0) No adverse atmospheric-related driving conditions
(1) Rain
(2) Sleet/hail
(3) Snow
(4) Fog
(5) Rain and fog
(6) Sleet and fog
(7) Other (e.g., smog, smoke, blowing sand or dust, etc.) (specify):
_____
(9) Unknown

28. Traffic Control Device — Ø
(0) No traffic control(s)
(1) Traffic control signal (not RR crossing)

Regulatory solid double yellow lane lines
(2) Stop sign
(3) Yield sign
(4) School zone sign
(5) Other regulatory sign (specify):
_____
(6) Warning sign (not RR crossing)
(7) Unknown sign
(8) Miscellaneous/other controls including RR controls (specify):
_____
(9) Unknown

29. Traffic Control Device Functioning — Ø
(0) No traffic control device
(1) Traffic control device not functioning (specify):
_____
(2) Traffic control device functioning properly
(9) Unknown

PRECRASH DRIVER RELATED DATA

30. Driver's Distraction/Inattention To Driving (Prior To Recognition Of Critical Event) 99
    - (00) No driver present
    - (01) Attentive or not distracted
    - (02) Looked but did not see

    Distractions
    - (03) By other occupant(s), (specify): _____
    - (04) By moving object in vehicle (specify): _____
    - (05) While talking or listening to cellular phone (specify location and type of phone): _____
    - (06) While dialing cellular phone (specify location and type of phone): _____
    - (07) While adjusting climate controls
    - (08) While adjusting radio, cassette, CD (specify): _____
    - (09) While using other device/controls integral to vehicle (specify): _____
    - (10) While using or reaching for device/object brought into vehicle (specify): _____
    - (11) Sleepy or fell asleep
    - (12) Distracted by outside person, object, or event (specify): _____
    - (13) Eating or drinking
    - (14) Smoking related
    - (97) Distracted/inattentive, details unknown
    - (98) Other, distraction (specify): _____
    - (99) Unknown

31. Pre-Event Movement (Prior to Recognition of Critical Event) 14
    - (00) No driver present
    - (01) Going straight
    - (02) Decelerating in traffic lane
    - (03) Accelerating in traffic lane
    - (04) Starting in traffic lane
    - (05) Stopped in traffic lane
    - (06) Passing or overtaking another vehicle
    - (07) Disabled or parked in travel lane
    - (08) Leaving a parking position
    - (09) Entering a parking position
    - (10) Turning right
    - (11) Turning left
    - (12) Making a U-turn
    - (13) Backing up (other than for parking position)
    - (14) Negotiating a curve
    - (15) Changing lanes
    - (16) Merging
    - (17) Successful avoidance maneuver to a previous critical event
    - (97) Other (specify): _____
    - (99) Unknown

32. Critical Precrash Event 54

    THIS VEHICLE LOSS OF CONTROL DUE TO:
    - (01) Blow out or flat tire
    - (02) Stalled engine
    - (03) Disabling vehicle failure (e.g., wheel fell off) (specify): _____
    - (04) Non-disabling vehicle problem (e.g., hood flew up) (specify): _____
    - (05) Poor road conditions (puddle, pot hole, ice, etc.) (specify): _____
    - (06) Traveling too fast for conditions
    - (08) Other cause of control loss (specify): _____
    - (09) Unknown cause of control loss

    THIS VEHICLE TRAVELLING
    - (10) Over the lane line on left side of travel lane
    - (11) Over the lane line on right side of travel lane
    - (12) Off the edge of the road on the left side
    - (13) Off the edge of the road on the right side
    - (14) End departure
    - (15) Turning left at intersection
    - (16) Turning right at intersection
    - (17) Crossing over (passing through) intersection
    - (18) This vehicle decelerating
    - (19) Unknown travel direction

    OTHER MOTOR VEHICLE IN LANE
    - (50) Other vehicle stopped
    - (51) Traveling in same direction with lower steady speed
    - (52) Traveling in same direction while decelerating
    - (53) Traveling in same direction with higher speed
    - (54) Traveling in opposite direction
    - (55) In crossover
    - (56) Backing
    - (59) Unknown travel direction of other motor vehicle in lane

    OTHER MOTOR VEHICLE ENCROACHING INTO LANE
    - (60) From adjacent lane (same direction)—over left lane line
    - (61) From adjacent lane (same direction)—over right lane line
    - (62) From opposite direction—over left lane line
    - (63) From opposite direction—over right lane line
    - (64) From parking lane
    - (65) From crossing street, turning into same direction
    - (66) From crossing street, across path
    - (67) From crossing street, turning into opposite direction
    - (68) From crossing street, intended path not known
    - (70) From driveway, turning into same direction
    - (71) From driveway, across path
    - (72) From driveway, turning into opposite direction
    - (73) From driveway, intended path not known
    - (74) From entrance to limited access highway
    - (78) Encroachment by other vehicle—details unknown

    PEDESTRIAN, PEDALCYCLIST, OR OTHER NONMOTORIST
    - (80) Pedestrian in roadway
    - (81) Pedestrian approaching roadway
    - (82) Pedestrian—unknown location
    - (83) Pedalcyclist or other nonmotorist in roadway (specify): _____
    - (84) Pedalcyclist or other nonmotorist approaching roadway, (specify): _____
    - (85) Pedalcyclist or other nonmotorist—unknown location (specify): _____

    OBJECT OR ANIMAL
    - (87) Animal in roadway
    - (88) Animal approaching roadway
    - (89) Animal—unknown location
    - (90) Object in roadway
    - (91) Object approaching roadway
    - (92) Object—unknown location
    - (98) Other critical precrash event (specify): _____
    - (99) Unknown

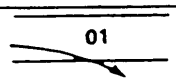
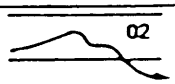
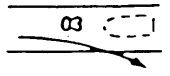
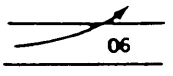
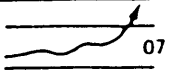
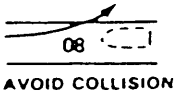
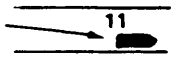
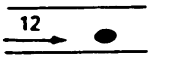
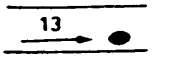
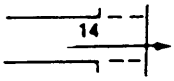
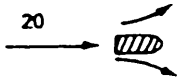
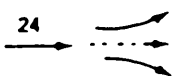
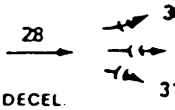
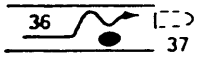
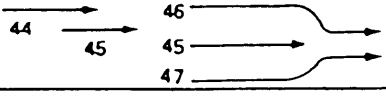
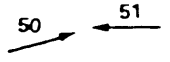
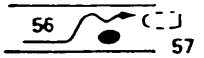
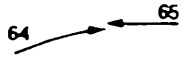
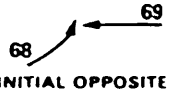
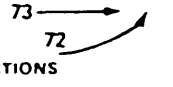
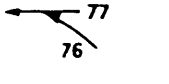
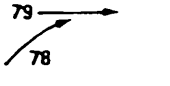
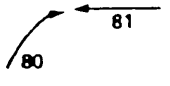
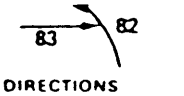
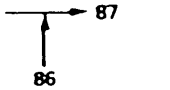
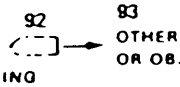
33. Attempted Avoidance Maneuver 06
(00) No driver present
(01) No avoidance maneuver
(02) Braking (no lockup)
(03) Braking (lockup)
(04) Braking (lockup unknown)
(05) Releasing brakes
(06) Steering left
(07) Steering right
(08) Braking and steering left
(09) Braking and steering right
(10) Accelerating
(11) Accelerating and steering left
(12) Accelerating and steering right
(98) Other action (specify): _____
(99) Unknown

34. Pre-Impact Stability 1
(0) No driver present
(1) Tracking
(2) Skidding longitudinally—rotation less than 30 degrees
(3) Skidding laterally—clockwise rotation
(4) Skidding laterally—counterclockwise rotation
(7) Other vehicle loss-of-control (specify): _____
(9) Precrash stability unknown

35. Pre-Impact Location 1
(0) No driver present
(1) Stayed in original travel lane
(2) Stayed on roadway but left original travel lane
(3) Stayed on roadway, not known if left original travel lane
(4) Departed roadway
(5) Remained off roadway
(6) Returned to roadway
(7) Entered roadway
(9) Unknown

36. Accident Type 51
(Note: Applicable codes on back of this page)
(00) No impact
Code the number of the diagram that best describes the accident circumstance
(98) Other accident type (specify): _____
(99) Unknown

STOP HERE IF GV07 DOES NOT EQUAL 01 - 49

Category	Configuration	ACCIDENT TYPES (Includes Intent)				
I Single Driver	A Right Roadside Departure	 01 DRIVE OFF ROAD	 02 CONTROL/ TRACTION LOSS	 03 AVOID COLLISION WITH VEH., PED., ANIM.	04 SPECIFICS OTHER	05 SPECIFICS UNKNOWN
	B Left Roadside Departure	 06 DRIVE OFF ROAD	 07 CONTROL/ TRACTION LOSS	 08 AVOID COLLISION WITH VEH., PED., ANIM.	09 SPECIFICS OTHER	10 SPECIFICS UNKNOWN
	C Forward Impact	 11 PARKED VEH.	 12 STA. OBJECT	 13 PEDESTRIAN/ ANIMAL	 14 END DEPARTURE	15 SPECIFICS OTHER	16 SPECIFICS UNKNOWN
II Same Trafficway Same Direction	D Rear-End	 20 22 21 23 STOPPED 21, 22, 23	 24 26 25 27 SLOWER 25, 26, 27	 28 30 29 31 DECEL. 29, 30, 31	(EACH • 32) SPECIFICS OTHER	(EACH • 33) SPECIFICS UNKNOWN
	E Forward Impact	 34 35 CONTROL/ TRACTION LOSS	 36 37 CONTROL/ TRACTION LOSS	 38 39 AVOID COLLISION WITH VEH.	 40 41 AVOID COLLISION WITH OBJECT	(EACH • 42) SPECIFICS OTHER	(EACH • 43) SPECIFICS UNKNOWN
	F Sideswipe Angle	 44 45 46 45 47			(EACH • 48) SPECIFICS OTHER	(EACH • 49) SPECIFICS UNKNOWN	
III Same Trafficway Opposite Direction	G Head-On	 50 51 LATERAL MOVE	(EACH • 52) SPECIFICS OTHER		(EACH • 53) SPECIFICS UNKNOWN		
	H Forward Impact	 54 55 CONTROL/ TRACTION LOSS	 56 57 CONTROL/ TRACTION LOSS	 58 59 AVOID COLLISION WITH VEH	 60 61 AVOID COLLISION WITH OBJECT	(EACH • 62) SPECIFICS OTHER	(EACH • 63) SPECIFICS UNKNOWN
	I Sideswipe Angle	 64 65 LATERAL MOVE	(EACH • 66) SPECIFICS OTHER		(EACH • 67) SPECIFICS UNKNOWN		
IV Change Trafficway Vehicle Turning	J Turn Across Path	 68 69 INITIAL OPPOSITE DIRECTIONS	 71 70  73 72 INITIAL SAME DIRECTIONS			(EACH • 74) SPECIFICS OTHER	(EACH • 75) SPECIFICS UNKNOWN
	K Turn Into Path	 76 77  78 79 TURN INTO SAME DIRECTION		 80 81  83 82 TURN INTO OPPOSITE DIRECTIONS		(EACH • 84) SPECIFICS OTHER	(EACH • 85) SPECIFICS UNKNOWN
V Intersecting Paths (Vehicle Damage)	L Straight Paths	 86 87	 88 89		(EACH • 90) SPECIFICS OTHER	(EACH • 91) SPECIFICS UNKNOWN	
VI Miscellaneous	M Backing Etc	 92 BACKING VEH 93 OTHER VEH OR OBJECT			98 Other Accident Type 99 Unknown Accident Type 00 No Impact		

OCCUPANT RELATED

37. Driver Presence in Vehicle — 1
(0) Driver not present
(1) Driver present
(9) Unknown

38. Number of Occupants This Vehicle — 01
(00-96) Code actual number of occupants for this vehicle
(97) 97 or more
(99) Unknown

39. Number of Occupant Forms Submitted — 01

AIR BAG RELATED

40. Is this an AOPS Vehicle? — 1
(0) No (includes unknown)
(1) Yes - researcher determined
(2) VIN determined air bag system
(3) VIN determined automatic (passive) belts
(4) VIN determined air bag and automatic (passive) belts

41. Air Bag(s) Deployment, First Seat Frontal — 2
(0) Not equipped or not available
(1) No air bags deployed

Single Air Bag Vehicle
(2) Driver air bag deployed
(3) Driver air bag, unknown if deployed

Multiple Air Bag Vehicle
(4) Driver side only deployed
(5) Passenger side only deployed
(6) Driver and passenger side deployed
(7) Driver and passenger side unknown if deployed
(8) Air bag(s) deployed, details unknown
(9) Unknown

42. Air Bag(s) Deployment, Other Than First Seat Frontal — 0
(0) Not equipped with an "other" air bag
(1) Deployed during accident (as a result of impact)
(2) Deployed inadvertently just prior to accident
(3) Deployed, details unknown
(4) Deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical)
(5) Unknown if deployed
(7) Nondeployed
(9) Unknown

Specify type of "other" air bag present: _____

VEHICLE WEIGHT ITEMS

43. Vehicle Curb Weight — 1460
____ Code weight to nearest 10 kilograms.
(045) Less than 454 kilograms
(612) 6,124 kilograms or more
(999) Unknown
3.224 lbs X 4536 = 1462 kgs

Source: _____

44. Vehicle Cargo Weight — 9990
____ Code weight to nearest 10 kilograms.
(000) Less than 5 kilograms
(454) 4,536 kilograms or more
(999) Unknown
__ __.__ __ __ lbs X .4536 = __.__ __ __ kgs

Source: _____

ROLLOVER DATA

45. Rollover — 00
(00) No rollover (no overturning)

Rollover (primarily about the longitudinal axis)
(01-16) Code the number of quarter turns
(17) Rollover, 17 or more quarter turns (specify): _____
(98) Rollover--end-over-end (i.e., primarily about the lateral axis)
(99) Rollover (overturn), details unknown

46. Rollover Initiation Type — 00
(00) No rollover
(01) Trip-over
(02) Flip-over
(03) Turn-over
(04) Climb-over
(05) Fall-over
(06) Bounce-over
(07) Collision with another vehicle
(08) Other rollover initiation type specify): _____
(98) Rollover--end-over-end
(99) Unknown rollover initiation type

47. Location of Rollover Initiation — 0
(0) No rollover
(1) On roadway
(2) On shoulder—paved
(3) On shoulder—unpaved
(4) On roadside or divided trafficway median
(8) Rollover--end-over-end
(9) Unknown

48. Rollover Initiation Object Contacted — 00
(Note: Applicable codes on back of page)

49. Location on Vehicle Where Initial Principal Tripping Force Is Applied — 0
(0) No rollover
(1) Wheels/tires
(2) Side plane
(3) End plane
(4) Undercarriage
(5) Other location on vehicle (specify): _____
(6) Non-contact rollover forces (specify): _____
(8) Rollover--end-over-end
(9) Unknown

50. Direction of Initial Roll — 0
(0) No rollover
(1) Roll right - primarily about the longitudinal axis
(2) Roll left - primarily about the longitudinal axis
(8) Rollover--end-over-end
(9) Unknown roll direction

OVERRIDE/UNDERRIDE (THIS VEHICLE)

51. Front Override/Underride (this Vehicle) Φ

52. Rear Override/Underride (this Vehicle) Φ

(0) No override/underride, or not an end-to-end impact between two CDS applicable vehicles, and no medium/heavy truck or bus underride

Override (see specific CDC)
(Between 2 CDS applicable vehicles (Bodytype, GV07 = 1-49))
(1) 1st CDC
(2) 2nd CDC
(3) Other not automated CDC (specify):

_____

Underride (see specific CDC)
(Between 2 CDS applicable vehicles (Bodytype, GV07 = 1-49))
(4) 1st CDC
(5) 2nd CDC
(6) Other not automated CDC (specify):

_____

(7) Medium/heavy truck or bus override (of any configuration)
(9) Unknown

HEADING ANGLE AT IMPACT FOR HIGHEST DELTA V

Values: (000)-(359) Code actual value
(996) Non-horizontal impact
(997) Noncollision
(998) Impact with object
(999) Unknown

53. Heading Angle For This Vehicle 170

54. Heading Angle For Other Vehicle 340

RECONSTRUCTION DATA

55. Towed Trailing Unit Φ
(0) No towed unit
(1) Yes—towed trailing unit
(9) Unknown

56. Documentation of Trajectory Data for This Vehicle Φ
(0) No
(1) Yes

57. Post Collision Condition of Tree or Pole (For Highest Delta V) Φ
(0) Not collision (for highest delta V) with tree or pole
(1) Not damaged
(2) Cracked/sheared
(3) Tilted <45 degrees
(4) Tilted ≥45 degrees
(5) Uprooted tree
(6) Separated pole from base
(7) Pole replaced
(8) Other (specify):

_____

(9) Unknown

ACCIDENT RECONSTRUCTION PROGRAMS HIGHEST DELTA V

58. Basis for Total (Resultant) Delta V (highest) ΦΦ

(00) No vehicle inspection

Delta V Calculated
(01) Reconstruction program-damage only routine
(02) Reconstruction program-damage and trajectory routine
(03) Missing vehicle algorithm

Delta V Not Calculated
(04) At least one vehicle (which may be this vehicle) is beyond the scope of an acceptable reconstruction program, regardless of collision conditions.

All vehicles within scope (CDC applicable) of reconstuction program but one of the collision conditions is beyond the scope of the reconstruction program or other acceptable reconstruction technique, regardless of adequacy of damage data.

(05) Rollover
(06) Other non-horizontal forces
(07) Sideswipe type damage
(08) Severe override
(09) Yielding object
(10) Overlapping damage
(11) All vehicle and collision conditions are within scope of one of the acceptable reconstruction programs, but there is insufficient data available, (specify):

_____

_____

(98) Other, (specify): _____

_____

COMPUTER GENERATED CRASH SEVERITY

59. Total Delta V — Highest: 999

_____ Nearest kmph (highest)

_____ Nearest kmph (secondary)

(NOTE: 000 means less than 0.5 kmph)
(160) 159.5 kmph and above
(999) Unknown

60. Longitudinal Component of Delta V — Highest: + - 999

_____ Nearest kmph (highest)

_____ Nearest kmph (secondary)

(NOTE: _000 means greater than -0.5 kmph and less than +0.5 kmph)
(±160) ±159.5 kmph and above
(_999) Unknown

61. Lateral Component of Delta V — Highest: + - 999

_____ Nearest kmph (highest)

_____ Nearest kmph (secondary)

(NOTE: _000 means greater than -0.5 kmph and less than +0.5 kmph)
(±160) ±159.5 kmph and above
(_999) Unknown

62. Energy Absorption — Highest: 999.900

_____ Nearest 100 joules (highest)

_____ Nearest 100 joules (secondary)

(NOTE: 0000 means less than 50 joules)
(9997) 999,650 joules or more
(9999) Unknown

63. Impact Speed — Highest: 999

_____ Nearest kmph (highest)

_____ Nearest kmph (secondary)

(NOTE: 000 means less than 0.5 kmph)
(160) 159.5 kmph and above
(998) Trajectory algorithm not run
(999) Unknown

DELTA V CONFIDENCE LEVEL

64. Confidence In Reconstruction Program Results (For Highest Delta V): Ø
(0) No reconstruction
(1) Collision fits model — results appear reasonable
(2) Collision fits model — results appear high
(3) Collision fits model — results appear low
(4) Borderline reconstruction — results appear reasonable

OTHER SPEED ESTIMATE

65. Barrier Equivalent Speed — Highest: 999

_____ Nearest kmph (highest)

_____ Nearest kmph (secondary)

(NOTE: 000 means less than 0.5 kmph)
(160) 159.5 kmph and above
(999) Unknown

ESTIMATED DELTA V

66. Estimated Highest Delta V (Researcher Determined) 3
(0) Reconstruction Delta V coded

Estimated Delta V
(1) Less than 10 kmph
(2) ≥ 10 kmph but < 25 kmph
(3) ≥ 25 kmph but < 40 kmph
(4) ≥ 40 kmph but < 55 kmph
(5) ≥ 55 kmph

Other estimates of damage severity
(6) Minor
(7) Moderate
(8) Severe

(9) Unknown

INSPECTION TYPE

67. Type of Vehicle Inspection Φ
(0) No inspection
(1) Vehicle fully repaired-no damage evident
(2) Partial inspection (specify): _____
(3) Complete inspection

DELTA V EVENT NUMBER

68. Delta V Event Number 1
_____ Code the accident event sequence number that resulted in the Delta V that has been coded above for this vehicle
(99) Unknown

*** IF THE CDS APPLICABLE VEHICLE WAS NOT INSPECTED (I.E., GV67 = 0), ***

DO NOT COMPLETE THE EXTERIOR AND INTERIOR VEHICLE FORMS

*** IF GV07 DOES NOT EQUAL 01-49, DO NOT COMPLETE ***

THE EXTERIOR VEHICLE, INTERIOR VEHICLE,

OCCUPANT ASSESSMENT, AND OCCUPANT INJURY FORMS.

U.S. Department of Transportation
National Highway Traffic Safety Administration

EXTERIOR VEHICLE FORM

NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number: 10
2. Case Number - Stratum: 9628
3. Vehicle Number: 01

VEHICLE IDENTIFICATION

VIN: JNIHJ01F9R------- Model Year: 94

Vehicle Make (specify): NISSAN Vehicle Model (specify): Maxima 4-dr

LOCATOR

Locate the end of the damage with respect to the vehicle's damaged center point or bumper corner for end impacts or an undamaged axle for side impacts.

Specific Impact No.	Location of Direct Damage	Location of Field L	Location of Max Crush
1	F (R) two thirds	F-(R) corner inward	(R) corner

CRUSH PROFILE IN CENTIMETERS

NOTES: Identify the plane at which the C-measurements are taken (e.g., at bumper, above bumper, at sill, above sill, etc.) and label adjustments (e.g., free space).

Measure C1 to C6 from driver to passenger side in front or rear impacts and rear to front in side impacts.

Free space value is defined as the distance between the baseline and the original body contour taken at the individual C locations. This may include the following: bumper lead, bumper taper, side protrusion, side taper, etc. Record the value for each C-measurement and maximum crush.

Use as many lines/columns as necessary to describe each damage profile.

Specific Impact Number	Plane of Impact C-Measurements	Direct Damage Width (CDC)	Direct Damage Max Crush	Field L	C_1	C_2	C_3	C_4	C_5	C_6	±D
1	Bumper										
		Photographs				Only					

ORIGINAL SPECIFICATIONS WORK SHEET

Wheelbase	104.3	inches	x 2.54	=	264.9	cm
Overall Length	187.6	inches	x 2.54	=	476.5+	cm
Maximum Width	69.3	inches	x 2.54	=	176.0	cm
Curb Weight	3,224	pounds	x 0.4536	=	1,462.4	kg
Average Track	59.4 / 58.7 → 59.05	inches	x 2.54	=	149.99	cm
Front Overhang	___.___	inches	x 2.54	=	___	cm
Rear Overhang	___.___	inches	x 2.54	=	___	cm
Undeformed End Width	___.___	inches	x 2.54	=	___	cm
Engine Size: cyl/displ.	____	cc	x 0.001	=	V6 3.0	L
V6 VG-30 E engine 12-valve	181	CID	x 0.0164	=	3.0	L

4-speed Automatic — Shipping Weight
3,139
100
3,239

5-speed manual — Curb Weight
3,165
59
3,224

For VE30DE Engine 24 Valve
Shipping Weight
4-speed Auto 3,224
5-speed Manual 3,165
59

SPECIAL CRASH INVESTIGATION ADDENDUM

Submodel Designation: {specify} unk **Color:** {specify} Brown **Repair Cost:** $ unk

Transmission: {circle} (Automatic) | Manual **Speed:** 3-speed | (4-speed) | 5-speed | Other:

Steering: {circle} Power-assisted | Manual **Type:** rack-and-pinion | worm-and-gear | Other
{please describe}: unk

Brakes: {circle} Power-assisted | Manual **Type:** 4-wheel disc | 4-wheel drum | 4-wheel hydraulic | front disc, rear drum | Other:

Observed Defects: {specify} none per photos

Fleet Type: {circle} (Private vehicle) | Rental vehicle | Leased vehicle | Commercial vehicle | Other
{please describe}:

VEHICLE DAMAGE SKETCH

TIRE—WHEEL DAMAGE

	a. Rotation physically restricted	b. Tire deflated
RF	1	2
LF	2	2
RR	2	2
LR	2	2

(1) Yes (2) No (8) NA (9) Unk.

TYPE OF TRANSMISSION
☐ Manual ☐ Automatic UNK

END SHIFT ≥ 10 CM
☐ Yes ☒ No

ORIGINAL SPECIFICATIONS

Wheelbase	265	cm
Overall Length	477	cm
Maximum Width	176	cm
Curb Weight	1452	kg
Average Track	150	cm
Front Overhang	UNK	cm
Rear Overhang	UNK	cm
Undeformed End Width	UNK	cm
Engine Size: cyl./displ.	V6/3.0L	L

WHEEL STEER ANGLES
(For locked front wheels or displaced rear axles only)

RF	± 20	°
LF	± 0	°
RR	± 0	°
LR	± 0	°

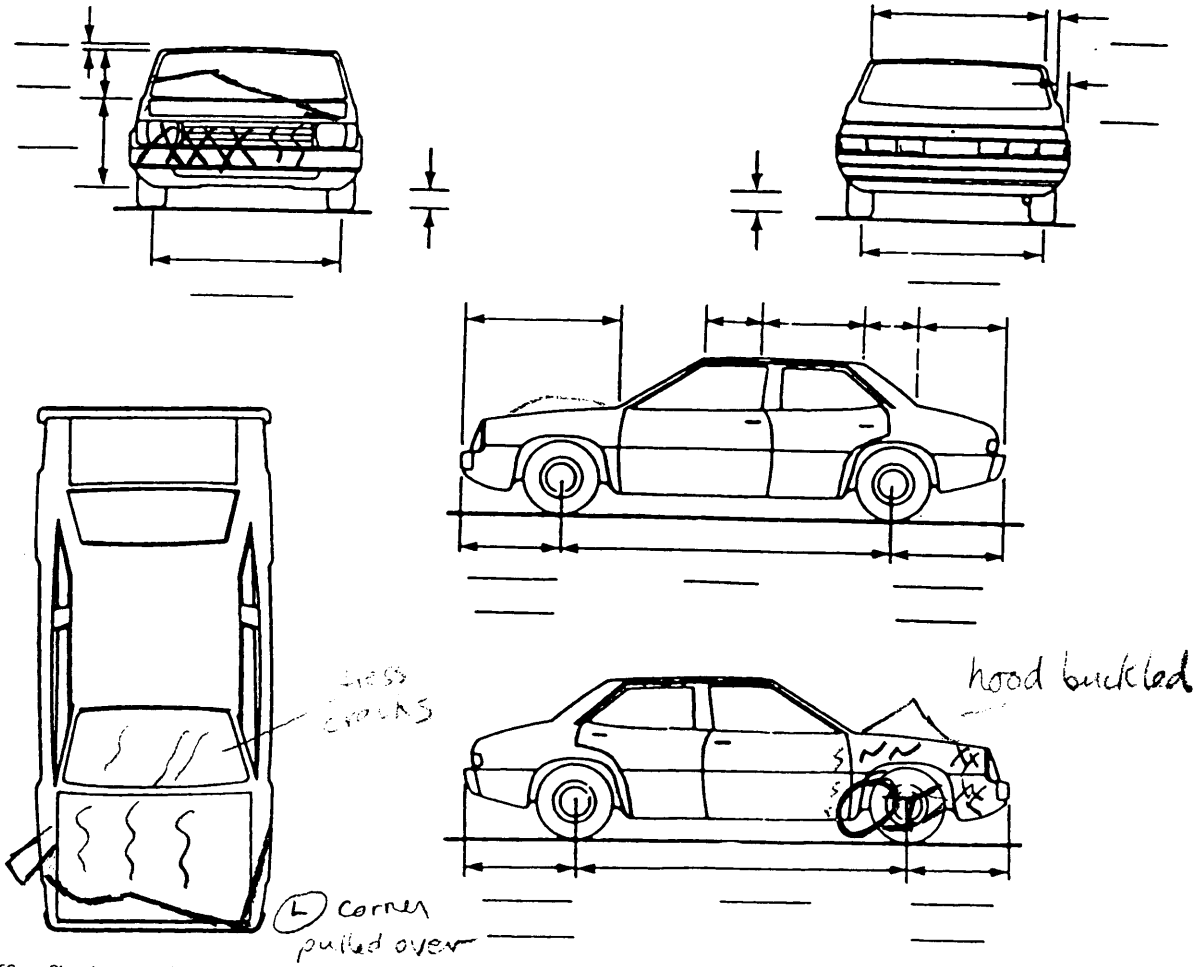
Within ± 5 degrees

DRIVE WHEELS
☒ FWD ☐ RWD ☐ 4WD

Approximate Cargo Weight UNK kg

MEASUREMENTS IN CENTIMETERS

SKETCH FROM PHOTOS



NOTES: Sketch new perimeter and cross hatch direct damage and single hatch induced damage on all views. Annotate observations which might be useful in reconstructing the accident (e.g., grass in tire bead, direction of striations, scuff on sidewalls, etc.). If pulling trailer, sketch type of trailer and damage received on the back of this page.

Annotate any damage caused by extrication such as component removal by torching, prying, or hydraulic shears.

NISSAN MOTOR CO., LTD,

Type of Body Pass. Cap.	Model	Wheel Base	Total Length	Ship. Wt.	Tax H.P.	P.O.E. West Coast	P.O.E. East Coast
4-PS 2-door Sedan SE-R	22414	95.7"	170.3"	2518	18.39	14,599	14,599

Options Sentra: Destination Charges-$380; Air Conditioning-(A01)$995; Driver-Side Airbag(N03)-$575; XE Value Pkg(F09)-$1000; SE/SE R Value Pkg(F09)-$1300; Power Sunroof(J01)-$825; Metallic Paint(E09)-$100; Antilock Braking System(B07)-$700; Cruise Control(S05)-$230; Calif Emission(C01)-$150; AM/FM Stereo w/cassette(H01)-$600; Fleet Package-$1260; Fleet Pkg(W01)-$1260; Power Steering(S02)-$500

1994 ALTIMA FWD 4 cyl 2.4 liter, DOHC SMPFI Gas Engine(16 valve)

Bore & Stroke 3.50"x3.78"; Tax H.P. 19.6; SAE H.P. 150@5600; Torque 154@4400; 145 cu.in., 2.4 liter

Man. Trans. 5-speed; EPA Mileage Estimate 24/30

4-PS 4-door Sedan XE	15653	103.1"	180.5"	2829	19.6	13,739	13,739
4-PS 4-door Sedan GXE	15754	103.1"	180.5"	2898	19.6	14,859	14,859
4-PS 4-door Sedan SE	15954	103.1"	180.5"	2902	19.6	18,179	18,179

Auto. Trans. 4-speed; EPA Mileage Estimate 21/29

4-PS 4-door Sedan XE w/Cruise Control	15614	103.1"	180.5"	2907	19.6	14,699	14,699
4-PS 4-door Sedan GXE	15714	103.1"	180.5"	2972	19.6	15,684	15,684
4-PS 4-door Sedan SE	15914	103.1"	180.5"	2988	19.6	19,004	19,004
4-PS 4-door Sedan GLE	15814	103.1"	180.5"	2990	19.6	19,179	19,179

Options Altima: Destination Charges-$380; Antilock Braking System(B07)-$995; ABS w/Viscous Ltd. Slip(B10)-$1195; Cruise Control(S07)-$230; Leather Trim Package(X03)-$1000; XE Option Pkg(F02)-$1825; Power Sunroof(J01)-$825; GXE Value Option Pkg(F09)-$1000; Calif. Emissions(C01)-$150

1994 MAXIMA FWD V6 cyl 3.0 liter, SOHC SMPFI Gas Engine(VG30E)(12 valve)

Bore & Stroke 3.43"x3.27"; Tax H.P. 28.24; SAE H.P. 160@5200; Torque 182@2800; 181cu.in., 3.0 liter

Auto. Trans. 4-speed; EPA Mileage Estimate 19/26

4-PS 4-door Sedan GXE	08414	104.3"	187.6"	3139	28.24	22,199	22,199

1994 MAXIMA FWD V6 cyl 3.0 liter, DOHC SMPFI Gas Engine(VE30DE)(24 valve)

Bore & Stroke 3.43"x3.27"; Tax H.P. 28.24; SAE H.P. 190@5600; Torque 190@4000; 181cu.in., 3.0 liter

Man. Trans. 5-speed; EPA Mileage Estimate 21/26

4-PS 4-door Sedan SE	08254	104.3"	187.6"	3165	28.24	23,299	23,299

Auto. Trans. 4-speed; EPA Mileage Estimate 19/25

4-PS 4-door Sedan SE	08214	104.3"	187.6"	3224	28.24	24,234	24,234

Options Maxima: Destination Charges-$380; Luxury Pkg(V01)-$2595; GXE Leather Trim Pkg(X03)-$1025; Antilock Braking System(B07)-$995; Pearlglow Paint(E07)-$350; Calif. Emissions(C01)-$150; SE Leather Trim Package(X03)-$1425; Sunroof(J01)-$875; CD Player(H07)-$400

1994 240SX FWD 4 cyl 2.4 liter, DOHC SMPFI Gas Engine(KA24DE)(16 valve)

Bore & Stroke 3.50"x3.78"; Tax H.P. 19.6; SAE H.P. 155@5600; Torque 160@4400; 146 cu.in., 2.4 liter

Auto. Trans. 4-speed; EPA Mileage Estimate 21/26

4-PS 2-door Convertible	26814	97.4"	178.0"	2770	19.6	23,969	23,969

Options Sentra 240SX: Destination Charges-$380; Air Conditioning(A01)-$995; Calif Emissions(C01)-$150

1994 300ZX RWD V6 cyl 3.0 liter, DOHC Gas Engine(24 valve)

Bore & Stroke 3.43"x3.27"; Tax H.P. 28.24; SAE H.P. 222@6400;Torque 198@4800; 181cu.in., 3.0 liter

Man. Trans. 4-speed; EPA Mileage Estimate 18/24

2-PS 2-door Coupe	64054	96.5"	169.5"	3299	28.24	33,699	33,699
2-PS 2-door Coupe w/t bar	64154	96.5"	169.5"	3349	28.24	35,179	35,179
4-PS 2-door 2+2 Coupe w/t bar	64254	101.2"	178.0"	3413	28.24	36,489	36,489
2-PS 2-door Convertible(Cloth)	64654	96.5"	169.5"	3446	28.24	39,604	39,604
2-PS 2-door Convertible(Leather)	64754	96.5"	169.5"	3446	28.24	40,879	40,879

Auto. Trans. 4-speed; EPA Mileage Estimate 18/24

2-PS 2-door Coupe w/t bar	64114	96.5"	169.5"	3378	28.24	36,129	36,129
4-PS 2-door 2+2 Coupe w/t bar	64214	101.2"	178.0"	3442	28.24	37,439	37,439
2-PS 2-door Coupe Convertible(Cloth)	64614	96.5"	169.5"	3475	28.24	40,604	40,604
2-PS 2-door Coupe Convertible(Leather)	64714	96.5"	169.5"	3475	28.24	41,879	41,879

1994 300ZX V6 cyl 3.0 liter, DOHC SMPFI Gas Engine(24 valve)

Bore & Stroke 3.43"x3.27"; Tax H.P. 28.24; SAE H.P. 300@6400;Torque 283@3600; 181 cu.in., 3.0 liter

Man. Trans. 4-speed; EPA Mileage Estimate 18/24

2-PS 2-door Coupe w/t bar Turbo	64854	96.5"	169.5"	3517	28.24	40,099	40,099

Auto. Trans. 4-speed; EPA Mileage Estimate 18/24

2-PS 2-door Coupe w/t bar Turbo	64814	96.5"	169.5"	3554	28.24	42,124	42,124

Options Sentra 300SX: Destination Charges-$380; Leather Package-$1075 (2+2)-$1275; Pearl Glow Paint-$350; Calif. Emissions-$150

1994 PATHFINDER RWD V6 cyl 3.0 liter, SOHC, SMPFI Gas Engine(VG30E)(12 valve)

Bore & Stroke 3.43"x3.27"; Tax H.P. 28.24; SAE H.P. 153@4800; Torque 180@4000; 181cu.in., 3.0 liter

Man. Trans. 5-speed; EPA Mileage Estimate 15/18

5-PS 4-door Sport Utility XE 2WD	09254	104.3"	171.9"		28.24	19,429	19,429
5-PS 4-door Sport Utility XE 4WD	09654	104.3"	171.9"	3885	28.24	21,099	21,099

CDC WORKSHEET

CODES FOR OBJECT CONTACTED

(01-30) — Vehicle Number

Noncollision
- (31) Overturn — rollover (excludes end-over-end)
- (32) Rollover—end-over-end
- (33) Fire or explosion
- (34) Jackknife
- (35) Other intraunit damage (specify): _____
- (36) Noncollision injury
- (38) Other noncollision (specify): _____
- (39) Noncollision — details unknown

Collision With Fixed Object
- (41) Tree (≤ 10 cm in diameter)
- (42) Tree (> 10 cm in diameter)
- (43) Shrubbery or bush
- (44) Embankment
- (45) Breakaway pole or post (any diameter)

Nonbreakaway Pole or Post
- (50) Pole or post (≤ 10 cm in diameter)
- (51) Pole or post (> 10 cm but ≤ 30 cm in diameter)
- (52) Pole or post (> 30 cm in diameter)
- (53) Pole or post (diameter unknown)
- (54) Concrete traffic barrier
- (55) Impact attenuator
- (56) Other traffic barrier (includes guardrail) (specify): _____
- (57) Fence
- (58) Wall
- (59) Building
- (60) Ditch or culvert
- (61) Ground
- (62) Fire hydrant
- (63) Curb
- (64) Bridge
- (68) Other fixed object (specify): _____
- (69) Unknown fixed object

Collision with Nonfixed Object
- (70) Passenger car, light truck, van, or other vehicle not in-transport
- (71) Medium/heavy truck or bus not in-transport
- (72) Pedestrian
- (73) Cyclist or cycle
- (74) Other nonmotorist or conveyance
- (75) Vehicle occupant
- (76) Animal
- (77) Train
- (78) Trailer, disconnected in transport
- (79) Object fell from vehicle in-transport
- (88) Other nonfixed object (specify): _____
- (89) Unknown nonfixed object
- (98) Other event (specify): _____
- (99) Unknown event or object

DEFORMATION CLASSIFICATION BY EVENT NUMBER est. per photos

Accident Event Sequence Number	Object Contacted	(1) (2) Direction of Force (degrees)	Incremental Value of Shift	(3) Deformation Location	(4) Specific Longitudinal or Lateral Location	(5) Specific Vertical or Lateral Location	(6) Type of Damage Distribution	(7) Deformation Extent
01	02	-10	00	F	Z	E	W	02

COLLISION DEFORMATION CLASSIFICATION

HIGHEST DELTA "V"

Accident Event Sequence Number	Object Contacted	(1) (2) Direction of Force	(3) Deformation Location	(4) Longitudinal or Lateral Location	(5) Vertical or Lateral Location	(6) Type of Damage Distribution	(7) Deformation Extent
4. 01	5. 02	6. 12	7. F	8. Z	9. E	10. W	11. 02

Second Highest Delta "V"

12.	13.	14.	15.	16.	17.	18.	19.

CRUSH PROFILE IN CENTIMETERS

The crush profile for the damage described in the CDC(s) above should be documented in the appropriate space below. (ALL MEASUREMENTS ARE IN CENTIMETERS.)

HIGHEST DELTA "V"

20. L	21. C_1	C_2	C_3	C_4	C_5	C_6	22. ±D
							+ =

Second Highest Delta "V"

23. L	24. C_1	C_2	C_3	C_4	C_5	C_6	25. ±D
							+ =

26. Undeformed End Width (Coded when highest severity impact is an end plane impact.) 999
___ Code to the nearest centimeter
(250) 250 centimeters or more
(998) No highest severity end plane impact
(999) Unknown

27. Direct Damage Width (For highest severity impact) 999
___ Code to the nearest centimeter
(250) 250 centimeters or more
(999) Unknown

28. Original Wheelbase 265
___ Code to the nearest centimeter
(650) 650 centimeters or more
(999) Unknown
104.3 inches X 2.54 = 265 centimeters

29. Original Average Track Width 150
___ Code to the nearest centimeter
(185) 185 centimeters or more
(999) Unknown
59.0 inches X 2.54 = 150 centimeters

NASS CDS GENERAL VEHICLE FORM: VEHICLE #2

U.S. Department of Transportation
National Highway Traffic Safety Administration

BEST AVAILABLE

GENERAL VEHICLE FORM

NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number: 10
2. Case Number - Stratum: 9628
3. Vehicle Number: 02

VEHICLE IDENTIFICATION

4. Vehicle Model Year: 90
   Code the last two digits of the model year
   (99) Unknown

5. Vehicle Make (specify): Nummi/chev. GEO — 20
   Applicable codes are found in your NASS Data Collection, Coding and Editing Manual.
   (99) Unknown

6. Vehicle Model (specify): Prizm — 032
   Applicable codes are found in your NASS Data Collection, Coding and Editing Manual.
   (999) Unknown

7. Body Type: 04
   Note: Applicable codes may be found on the back of this page.

8. Vehicle Identification Number: 1Y1SK5162LZ_____
   1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17
   Left justify; Slash zeros and letter Z (Ø and Z)
   No VIN—Code all zeros
   Unknown—Code all nines

9. Vehicle Special Use (This Trip): Ø
   (0) No special use
   (1) Taxi
   (2) Vehicle used as school bus
   (3) Vehicle used as other bus
   (4) Military
   (5) Police
   (6) Ambulance
   (7) Fire truck or car
   (8) Other (specify): _____
   (9) Unknown

OFFICIAL RECORDS

10. Police Reported Vehicle Disposition: 1
    (0) Not towed due to vehicle damage
    (1) Towed due to vehicle damage
    (9) Unknown

11. Police Reported Travel Speed: 999
    Code to the nearest kmph (NOTE: 000 means less than 0.5 kmph)
    (160) 159.5 kmph and above
    (999) Unknown

    ___ mph X 1.6093 = ___ kmph

12. Speed Limit: 056
    (000) No statutory limit
    Code posted or statutory speed limit in kmph
    (999) Unknown

    35 mph X 1.6093 = 56 kmph

13. Police Reported Alcohol Presence For Driver: Ø
    (0) No alcohol present
    (1) Yes alcohol present
    (7) Not reported
    (8) No driver present
    (9) Unknown

14. Alcohol Test Result For Driver: 96
    Code actual value (decimal implied before first digit—0.xx)
    (95) Test refused
    (96) None given
    (97) AC test performed, results unknown
    (98) No driver present
    (99) Unknown

    Source: _____

15. Police Reported Other Drug Presence For Driver: Ø
    (0) No other drug(s) present
    (1) Yes other drug(s) present
    (7) Not reported
    (8) No driver present
    (9) Unknown

16. Other Drug Specimen Test Result For Driver: Ø
    (0) No specimen test given
    (1) Drug(s) not found in specimen
    (2) Drug(s) found in specimen, (specify): _____
    (3) Specimen test given, results unknown or not obtained
    (8) No driver present
    (9) Unknown if specimen test given

17. Driver's Zip Code: _____
    (00001) Driver not a resident of U.S. or territories
    _____ Code actual 5-digit zip code
    (99998) No driver present
    (99999) Unknown — Per Zip Directory

18. Driver's Race/Ethnic Origin: 9
    (1) White (non-Hispanic)
    (2) Black (non-Hispanic)
    (3) White (Hispanic)
    (4) Black (Hispanic)
    (5) American Indian, Eskimo or Aleut
    (6) Asian or Pacific Islander
    (7) Other (specify): _____
    (8) No driver present
    (9) Unknown

CODES FOR BODY TYPE

CDS APPLICABLE VEHICLES

Automobiles

(01) Convertible (excludes sun-roof, t-bar)
(02) 2-door sedan, hardtop, coupe
(03) 3-door/2-door hatchback
(04) 4-door sedan, hardtop
(05) 5-door/4-door hatchback
(06) Station wagon (excluding van and truck based)
(07) Hatchback, number of doors unknown
(08) Other automobile type (specify):

_____

(09) Unknown automobile type

Automobile Derivatives

(10) Auto based pickup (includes El Camino, Caballero, Ranchero, Brat, and Rabbit pickup)
(11) Auto based panel (cargo station wagon, auto based ambulance/hearse)
(12) Large limousine - more than four side doors or stretched chassis
(13) Three-wheel automobile or automobile derivative

Utility Vehicles (≤ 4,536 kgs GVWR)

(14) Compact utility (Jeep CJ-2 - CJ-7, Scrambler, Golden Eagle, Renegade, Laredo, Wrangler, Cherokee [84 and after], Dispatcher, Raider, Bronco II, Bronco [76 and before], Explorer, S-10 Blazer, Geo Tracker, Bravada, S-15 Jimmy, Thing, Pathfinder, Trooper, Trooper II, Rodeo, Amigo, Navajo, 4-Runner, Montero, Passport, Samurai, Sidekick, Rocky)
(15) Large utility (includes Jeep Cherokee [83 and before], Ramcharger, Trailduster, Bronco-fullsize [78 and after], fullsize Blazer, fullsize Jimmy, Hummer, Landcruiser, Rover, Scout, Yukon)
(16) Utility station wagon (Chevy Suburban, GMC Suburban, Travelall, Grand Wagoneer, includes suburban limousine)
(19) Utility, unknown body type

Van Based Light Trucks (≤ 4,536 kgs GVWR)

(20) Minivan (Town and Country, Caravan, Grand Caravan, Voyager, Grand Voyager, Mini-Ram, Vista, Aerostar, Windstar, Villager, Lumina APV, Trans Sport, Silhouette, Astro, Safari, Toyota Van, Toyota Minivan, Previa, Nissan Minivan, Quest, Mitsubishi Minivan, Expo Wagon, Vanagon/Camper.)
(21) Large van (B150-B350, Sportsman, Royal, Maxiwagon, Ram, Tradesman, Voyager [83 and before], E150-E350, Econoline, Clubwagon, Chateau, G10-G30, Chevy Van, Beauville, Sport Van, G15-G35, Rally Van, Vandura.)
(22) Step van or walk-in van (≤ 4,536 kgs GVWR)
(23) Van based motorhome (≤ 4,536 kgs GVWR)
(24) Van based school bus (≤ 4,536 kgs GVWR)
(25) Van based other bus (≤ 4,536 kgs GVWR)
(28) Other van type (Hi-Cube Van, Kary) (specify):

_____

(29) Unknown van type

Light Conventional Trucks (Pickup style cab, ≤ 4,536 kgs GVWR)

(30) Compact pickup (D50, Colt P/U, Ram 50, Dakota, Arrow Pickup [foreign], Ranger, Courier, S-10 , T-10, LUV, S-15, T-15, Sonoma, Datsun/Nissan Pickup, P'up, Mazda Pickup, Toyota Pickup, Mitsubishi Pickup)
(31) Large Pickup (Jeep Pickup, Comanche, Ram Pickup, D100-D350, W100-W350, F100-F350, C10-C35, K10-K35, R10-R35, V10-V35, Silverado, Sierra, R100-R500, T100)
(32) Pickup with slide-in camper
(33) Convertible pickup
(39) Unknown pickup style light conventional truck type

Other Light Trucks (≤ 4,536 kgs GVWR)

(40) Cab chassis based (includes rescue vehicles, light stake, dump, and tow truck)
(41) Truck based panel
(42) Light truck based motorhome (chassis mounted)
(45) Other light conventional truck type
(48) Unknown light truck type
(49) Unknown light vehicle type (automobile, utility, van, or light truck)

OTHER VEHICLES

Buses (Excludes Van Based)

(50) School bus (designed to carry students, not cross country or transit)
(58) Other bus type (e.g., transit, intercity, bus based motorhome) (specify):

_____

(59) Unknown bus type

Medium/Heavy Trucks (> 4,536 kgs GVWR)

(60) Step van (> 4,536 kgs GVWR)
(61) Single unit straight truck (4,536 kgs < GVWR ≤ 8,845 kgs)
(62) Single unit straight truck (8,845 kgs < GVWR ≤ 11,793 kgs)
(63) Single unit straight truck (> 11,793 kgs GVWR)
(64) Single unit straight truck, GVWR unknown
(65) Medium/heavy truck based motorhome
(67) Truck-tractor with no cargo trailer
(68) Truck-tractor pulling one trailer
(69) Truck-tractor pulling two or more trailers
(70) Truck-tractor (unknown if pulling trailer)
(78) Unknown medium/heavy truck type
(79) Unknown truck type (light/medium/heavy)

Motored Cycles (Does Not Include All-Terrain Vehicles/Cycles)

(80) Motorcycle
(81) Moped (motorized bicycle)
(82) Three-wheel motorcycle or moped
(88) Other motored cycle (minibike, motorscooter) (specify): _____
(89) Unknown motored cycle type

Other Vehicles

(90) ATV (All-Terrain Vehicle) and ATC (All-Terrain Cycle)
(91) Snowmobile
(92) Farm equipment other than trucks
(93) Construction equipment other than trucks
(97) Other vehicle type
(99) Unknown body type

PRECRASH ENVIRONMENTAL DATA

19. Relation To Interchange Or Junction — Ø
(0) Non-interchange area and non-junction
(1) Interchange area related

Non-Interchange junctions
(2) Intersection related
(3) Driveway, alley access related
(4) Other junction (specify)
_____
(5) Unknown type of junction

(9) Unknown

20. Trafficway Flow — Ø
(0) Not physically divided (two way traffic)
(1) Divided trafficway-median strip without positive barrier
(2) Divided trafficway-median strip with positive barrier
(3) One way traffic
(9) Unknown

21. Number Of Travel Lanes — 2
(1) One
(2) Two
(3) Three
(4) Four
(5) Five
(6) Six
(7) Seven or more
(9) Unknown

22. Roadway Alignment — 3
(1) Straight
(2) Curve right
(3) Curve left
(9) Unknown

23. Roadway Profile — 1
(1) Level
(2) Uphill grade (>2%)
(3) Hill crest
(4) Downhill grade (>2%)
(5) Sag
(9) Unknown

24. Roadway Surface Type — 2
(1) Concrete
(2) Bituminous (asphalt)
(3) Brick or block
(4) Slag, gravel, or stone
(5) Dirt
(8) Other (specify): _____
(9) Unknown

25. Roadway Surface Condition — 2
(1) Dry
(2) Wet
(3) Snow or slush
(4) Ice
(5) Sand, dirt, or oil
(8) Other (specify): _____
(9) Unknown

26. Light Conditions — 1
(1) Daylight
(2) Dark
(3) Dark, but lighted
(4) Dawn
(5) Dusk
(9) Unknown

27. Atmospheric Conditions — 1
(0) No adverse atmospheric-related driving conditions
(1) Rain
(2) Sleet/hail
(3) Snow
(4) Fog
(5) Rain and fog
(6) Sleet and fog
(7) Other (e.g., smog, smoke, blowing sand or dust, etc.) (specify):
_____
(9) Unknown

28. Traffic Control Device — 6
(0) No traffic control(s)
(1) Traffic control signal (not RR crossing)

Regulatory
(2) Stop sign
(3) Yield sign
(4) School zone sign
(5) Other regulatory sign (specify):
_____
(6) Warning sign (not RR crossing) Curve
(7) Unknown sign
(8) Miscellaneous/other controls including RR controls (specify):
_____
(9) Unknown

29. Traffic Control Device Functioning — 2
(0) No traffic control device
(1) Traffic control device not functioning (specify):
_____
(2) Traffic control device functioning properly
(9) Unknown

PRECRASH DRIVER RELATED DATA

30. Driver's Distraction/Inattention To Driving (Prior To Recognition Of Critical Event) 99
(00) No driver present
(01) Attentive or not distracted
(02) Looked but did not see

Distractions
(03) By other occupant(s), (specify): _____
(04) By moving object in vehicle (specify): _____
(05) While talking or listening to cellular phone (specify location and type of phone): _____
(06) While dialing cellular phone (specify location and type of phone): _____
(07) While adjusting climate controls
(08) While adjusting radio, cassette, CD (specify): _____
(09) While using other device/controls integral to vehicle (specify): _____
(10) While using or reaching for device/object brought into vehicle (specify): _____
(11) Sleepy or fell asleep
(12) Distracted by outside person, object, or event (specify): _____
(13) Eating or drinking
(14) Smoking related
(97) Distracted/inattentive, details unknown
(98) Other, distraction (specify): _____
(99) Unknown

31. Pre-Event Movement (Prior to Recognition of Critical Event) 99
(00) No driver present
(01) Going straight
(02) Decelerating in traffic lane
(03) Accelerating in traffic lane
(04) Starting in traffic lane
(05) Stopped in traffic lane
(06) Passing or overtaking another vehicle
(07) Disabled or parked in travel lane
(08) Leaving a parking position
(09) Entering a parking position
(10) Turning right
(11) Turning left
(12) Making a U-turn
(13) Backing up (other than for parking position)
(14) Negotiating a curve
(15) Changing lanes
(16) Merging
(17) Successful avoidance maneuver to a previous critical event Per statement to Police
(97) Other (specify): _____
(99) Unknown

32. Critical Precrash Event 10

THIS VEHICLE LOSS OF CONTROL DUE TO:
(01) Blow out or flat tire
(02) Stalled engine
(03) Disabling vehicle failure (e.g., wheel fell off) (specify): _____
(04) Non-disabling vehicle problem (e.g., hood flew up) (specify): _____
(05) Poor road conditions (puddle, pot hole, ice, etc.) (specify): _____
(06) Traveling too fast for conditions
(08) Other cause of control loss (specify): _____
(09) Unknown cause of control loss

THIS VEHICLE TRAVELLING
(10) Over the lane line on left side of travel lane
(11) Over the lane line on right side of travel lane
(12) Off the edge of the road on the left side
(13) Off the edge of the road on the right side
(14) End departure
(15) Turning left at intersection
(16) Turning right at intersection
(17) Crossing over (passing through) intersection
(18) This vehicle decelerating
(19) Unknown travel direction

OTHER MOTOR VEHICLE IN LANE
(50) Other vehicle stopped
(51) Traveling in same direction with lower steady speed
(52) Traveling in same direction while decelerating
(53) Traveling in same direction with higher speed
(54) Traveling in opposite direction
(55) In crossover
(56) Backing
(59) Unknown travel direction of other motor vehicle in lane

OTHER MOTOR VEHICLE ENCROACHING INTO LANE
(60) From adjacent lane (same direction)—over left lane line
(61) From adjacent lane (same direction)—over right lane line
(62) From opposite direction—over left lane line
(63) From opposite direction—over right lane line
(64) From parking lane
(65) From crossing street, turning into same direction
(66) From crossing street, across path
(67) From crossing street, turning into opposite direction
(68) From crossing street, intended path not known
(70) From driveway, turning into same direction
(71) From driveway, across path
(72) From driveway, turning into opposite direction
(73) From driveway, intended path not known
(74) From entrance to limited access highway
(78) Encroachment by other vehicle—details unknown

PEDESTRIAN, PEDALCYCLIST, OR OTHER NONMOTORIST
(80) Pedestrian in roadway
(81) Pedestrian approaching roadway
(82) Pedestrian—unknown location
(83) Pedalcyclist or other nonmotorist in roadway (specify): _____
(84) Pedalcyclist or other nonmotorist approaching roadway, (specify): _____
(85) Pedalcyclist or other nonmotorist—unknown location (specify): _____

OBJECT OR ANIMAL
(87) Animal in roadway
(88) Animal approaching roadway
(89) Animal—unknown location
(90) Object in roadway
(91) Object approaching roadway
(92) Object—unknown location
(98) Other critical precrash event (specify): _____
(99) Unknown

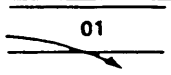
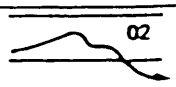
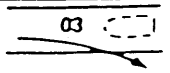
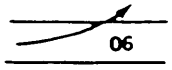
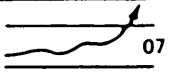
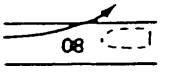
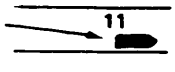
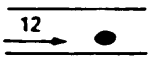
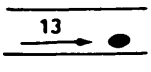
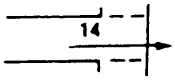
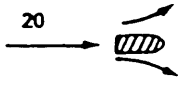
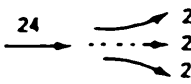
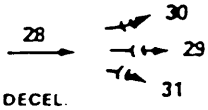
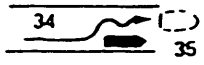
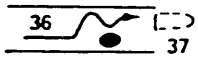
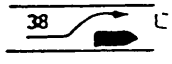
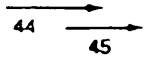
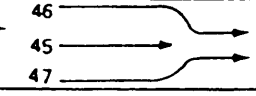
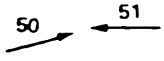
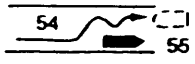
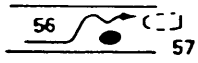
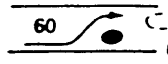
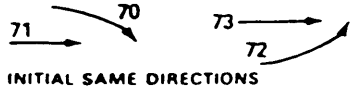
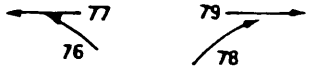
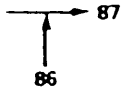
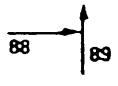
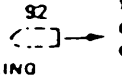
33. Attempted Avoidance Maneuver — 06
(00) No driver present
(01) No avoidance maneuver
(02) Braking (no lockup)
(03) Braking (lockup)
(04) Braking (lockup unknown)
(05) Releasing brakes
(06) Steering left
(07) Steering right
(08) Braking and steering left
(09) Braking and steering right
(10) Accelerating
(11) Accelerating and steering left
(12) Accelerating and steering right
(98) Other action (specify): _____
(99) Unknown

34. Pre-Impact Stability — 1
(0) No driver present
(1) Tracking
(2) Skidding longitudinally—rotation less than 30 degrees
(3) Skidding laterally—clockwise rotation
(4) Skidding laterally—counterclockwise rotation
(7) Other vehicle loss-of-control (specify): _____
(9) Precrash stability unknown

35. Pre-Impact Location — 1
(0) No driver present
(1) Stayed in original travel lane
(2) Stayed on roadway but left original travel lane
(3) Stayed on roadway, not known if left original travel lane
(4) Departed roadway
(5) Remained off roadway
(6) Returned to roadway
(7) Entered roadway
(9) Unknown

36. Accident Type — 50
(Note: Applicable codes on back of this page)
(00) No impact
Code the number of the diagram that best describes the accident circumstance
(98) Other accident type (specify): _____
(99) Unknown

STOP HERE IF GV07 DOES NOT EQUAL 01 - 49

Category	Configuration	ACCIDENT TYPES (Includes Intent)					
I Single Driver	A Right Roadside Departure	 01 DRIVE OFF ROAD	 02 CONTROL/ TRACTION LOSS	 03 AVOID COLLISION WITH VEH., PED., ANIM.	04 SPECIFICS OTHER	05 SPECIFICS UNKNOWN	
	B Left Roadside Departure	 06 DRIVE OFF ROAD	 07 CONTROL/ TRACTION LOSS	 08 AVOID COLLISION WITH VEH., PED., ANIM.	09 SPECIFICS OTHER	10 SPECIFICS UNKNOWN	
	C Forward Impact	 11 PARKED VEH.	 12 STA. OBJECT	 13 PEDESTRIAN/ ANIMAL	 14 END DEPARTURE	15 SPECIFICS OTHER	16 SPECIFICS UNKNOWN
II Same Trafficway Same Direction	D Rear-End	 20 22 21 23 STOPPED 21, 22, 23	 24 26 25 27 SLOWER 25, 26, 27	 28 30 29 31 DECEL. 29, 30, 31	(EACH • 32) SPECIFICS OTHER	(EACH • 33) SPECIFICS UNKNOWN	
	E Forward Impact	 34 35 CONTROL/ TRACTION LOSS	 36 37 CONTROL/ TRACTION LOSS	 38 39 AVOID COLLISION WITH VEH.	 40 41 AVOID COLLISION WITH OBJECT	(EACH • 42) SPECIFICS OTHER	(EACH • 43) SPECIFICS UNKNOWN
	F Sideswipe Angle	 44 45	 46 45 47	(EACH • 48) SPECIFICS OTHER		(EACH • 49) SPECIFICS UNKNOWN	
III Same Trafficway Opposite Direction	G Head-On	 50 51 LATERAL MOVE	(EACH • 52) SPECIFICS OTHER	(EACH • 53) SPECIFICS UNKNOWN			
	H Forward Impact	 54 55 CONTROL/ TRACTION LOSS	 56 57 CONTROL/ TRACTION LOSS	 58 59 AVOID COLLISION WITH VEH	 60 61 AVOID COLLISION WITH OBJECT	(EACH • 62) SPECIFICS OTHER	(EACH • 63) SPECIFICS UNKNOWN
	I Sideswipe Angle	 64 65 LATERAL MOVE	(EACH • 66) SPECIFICS OTHER	(EACH • 67) SPECIFICS UNKNOWN			
IV Change Trafficway Vehicle Turning	J Turn Across Path	 68 69 INITIAL OPPOSITE DIRECTIONS	 71 70 73 72 INITIAL SAME DIRECTIONS	(EACH • 74) SPECIFICS OTHER	(EACH • 75) SPECIFICS UNKNOWN		
	K Turn Into Path	 76 77 79 78 TURN INTO SAME DIRECTION	 80 81 83 82 TURN INTO OPPOSITE DIRECTIONS	(EACH • 84) SPECIFICS OTHER	(EACH • 85) SPECIFICS UNKNOWN		
V Intersecting Paths (Vehicle Damage)	L Straight Paths	 86 87	 88 89	(EACH • 90) SPECIFICS OTHER	(EACH • 91) SPECIFICS UNKNOWN		
VI Miscellaneous	M Backing Etc	 92 BACKING VEH 93 OTHER VEH OR OBJECT	98 Other Accident Type 99 Unknown Accident Type 00 No Impact				

OCCUPANT RELATED

37. Driver Presence in Vehicle — 1
(0) Driver not present
(1) Driver present
(9) Unknown

38. Number of Occupants This Vehicle — 01
(00-96) Code actual number of occupants for this vehicle
(97) 97 or more
(99) Unknown

39. Number of Occupant Forms Submitted — 00

AIR BAG RELATED

40. Is this an AOPS Vehicle? — 0
(0) No (includes unknown)
(1) Yes - researcher determined
(2) VIN determined air bag system
(3) VIN determined automatic (passive) belts
(4) VIN determined air bag and automatic (passive) belts

41. Air Bag(s) Deployment, First Seat Frontal — 0
(0) Not equipped or not available
(1) No air bags deployed

Single Air Bag Vehicle
(2) Driver air bag deployed
(3) Driver air bag, unknown if deployed

Multiple Air Bag Vehicle
(4) Driver side only deployed
(5) Passenger side only deployed
(6) Driver and passenger side deployed
(7) Driver and passenger side unknown if deployed
(8) Air bag(s) deployed, details unknown
(9) Unknown

42. Air Bag(s) Deployment, Other Than First Seat Frontal — 0
(0) Not equipped with an "other" air bag
(1) Deployed during accident (as a result of impact)
(2) Deployed inadvertently just prior to accident
(3) Deployed, details unknown
(4) Deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical)
(5) Unknown if deployed
(7) Nondeployed
(9) Unknown

Specify type of "other" air bag present: _____

VEHICLE WEIGHT ITEMS

43. Vehicle Curb Weight — 1,050
____ Code weight to nearest 10 kilograms.
(045) Less than 454 kilograms
(612) 6,124 kilograms or more
(999) Unknown
2,321 lbs X .4536 = 1,053 kgs

Source: _____

44. Vehicle Cargo Weight — 9,990
____ Code weight to nearest 10 kilograms.
(000) Less than 5 kilograms
(454) 4,536 kilograms or more
(999) Unknown
____,___ lbs X .4536 = ____,___ kgs

Source: _____

ROLLOVER DATA

45. Rollover — 00
(00) No rollover (no overturning)

Rollover (primarily about the longitudinal axis)
(01-16) Code the number of quarter turns
(17) Rollover, 17 or more quarter turns (specify): _____
(98) Rollover--end-over-end (i.e., primarily about the lateral axis)
(99) Rollover (overturn), details unknown

46. Rollover Initiation Type — 00
(00) No rollover
(01) Trip-over
(02) Flip-over
(03) Turn-over
(04) Climb-over
(05) Fall-over
(06) Bounce-over
(07) Collision with another vehicle
(08) Other rollover initiation type specify): _____
(98) Rollover--end-over-end
(99) Unknown rollover initiation type

47. Location of Rollover Initiation — 0
(0) No rollover
(1) On roadway
(2) On shoulder—paved
(3) On shoulder—unpaved
(4) On roadside or divided trafficway median
(8) Rollover--end-over-end
(9) Unknown

48. Rollover Initiation Object Contacted — 00
(Note: Applicable codes on back of page)

49. Location on Vehicle Where Initial Principal Tripping Force Is Applied — 0
(0) No rollover
(1) Wheels/tires
(2) Side plane
(3) End plane
(4) Undercarriage
(5) Other location on vehicle (specify): _____
(6) Non-contact rollover forces (specify): _____
(8) Rollover--end-over-end
(9) Unknown

50. Direction of Initial Roll — 0
(0) No rollover
(1) Roll right - primarily about the longitudinal axis
(2) Roll left - primarily about the longitudinal axis
(8) Rollover--end-over-end
(9) Unknown roll direction

OVERRIDE/UNDERRIDE (THIS VEHICLE)

51. Front Override/Underride (this Vehicle) Ø

52. Rear Override/Underride (this Vehicle) Ø
(0) No override/underride, or not an end-to-end impact between two CDS applicable vehicles, and no medium/heavy truck or bus underride

Override (see specific CDC)
(Between 2 CDS applicable vehicles (Bodytype, GV07 = 1-49))
(1) 1st CDC
(2) 2nd CDC
(3) Other not automated CDC (specify):

_____

Underride (see specific CDC)
(Between 2 CDS applicable vehicles (Bodytype, GV07 = 1-49))
(4) 1st CDC
(5) 2nd CDC
(6) Other not automated CDC (specify):

_____

(7) Medium/heavy truck or bus override (of any configuration)
(9) Unknown

HEADING ANGLE AT IMPACT FOR HIGHEST DELTA V

Values: (000)-(359) Code actual value
(996) Non-horizontal impact
(997) Noncollision
(998) Impact with object
(999) Unknown

53. Heading Angle For This Vehicle 3 4 Ø

54. Heading Angle For Other Vehicle 1 7 Ø

RECONSTRUCTION DATA

55. Towed Trailing Unit Ø
(0) No towed unit
(1) Yes—towed trailing unit
(9) Unknown

56. Documentation of Trajectory Data for This Vehicle Ø
(0) No
(1) Yes

57. Post Collision Condition of Tree or Pole (For Highest Delta V) Ø
(0) Not collision (for highest delta V) with tree or pole
(1) Not damaged
(2) Cracked/sheared
(3) Tilted <45 degrees
(4) Tilted ≥45 degrees
(5) Uprooted tree
(6) Separated pole from base
(7) Pole replaced
(8) Other (specify):

_____

(9) Unknown

ACCIDENT RECONSTRUCTION PROGRAMS HIGHEST DELTA V

58. Basis for Total (Resultant) Delta V (highest) Ø Ø

(00) No vehicle inspection

Delta V Calculated
(01) Reconstruction program-damage only routine
(02) Reconstruction program-damage and trajectory routine
(03) Missing vehicle algorithm

Delta V Not Calculated
(04) At least one vehicle (which may be this vehicle) is beyond the scope of an acceptable reconstruction program, regardless of collision conditions.

All vehicles within scope (CDC applicable) of reconstuction program but one of the collision conditions is beyond the scope of the reconstruction program or other acceptable reconstruction technique, regardless of adequacy of damage data.

(05) Rollover
(06) Other non-horizontal forces
(07) Sideswipe type damage
(08) Severe override
(09) Yielding object
(10) Overlapping damage
(11) All vehicle and collision conditions are within scope of one of the acceptable reconstruction programs, but there is insufficient data available, (specify):

_____

_____

(98) Other, (specify): _____

_____

COMPUTER GENERATED CRASH SEVERITY

59. Total Delta V — Highest: 999

_____ Nearest kmph (highest)

_____ Nearest kmph (secondary)

(NOTE: 000 means less than 0.5 kmph)
(160) 159.5 kmph and above
(999) Unknown

60. Longitudinal Component of Delta V — Highest: ± 999

_____ Nearest kmph (highest)

_____ Nearest kmph (secondary)

(NOTE: _000 means greater than -0.5 kmph and less than +0.5 kmph)
(±160) ±159.5 kmph and above
(_999) Unknown

61. Lateral Component of Delta V — Highest: ± 999

_____ Nearest kmph (highest)

_____ Nearest kmph (secondary)

(NOTE: _000 means greater than -0.5 kmph and less than +0.5 kmph)
(±160) ±159.5 kmph and above
(_999) Unknown

62. Energy Absorption — Highest: 9999.900

_____ Nearest 100 joules (highest)

_____ Nearest 100 joules (secondary)

(NOTE: 0000 means less than 50 joules)
(9997) 999,650 joules or more
(9999) Unknown

63. Impact Speed — Highest: 999

_____ Nearest kmph (highest)

_____ Nearest kmph (secondary)

(NOTE: 000 means less than 0.5 kmph)
(160) 159.5 kmph and above
(998) Trajectory algorithm not run
(999) Unknown

DELTA V CONFIDENCE LEVEL

64. Confidence In Reconstruction Program Results (For Highest Delta V): 4
(0) No reconstruction
(1) Collision fits model — results appear reasonable
(2) Collision fits model — results appear high
(3) Collision fits model — results appear low
(4) Borderline reconstruction — results appear reasonable

OTHER SPEED ESTIMATE

65. Barrier Equivalent Speed — Highest: 999

_____ Nearest kmph (highest)

_____ Nearest kmph (secondary)

(NOTE: 000 means less than 0.5 kmph)
(160) 159.5 kmph and above
(999) Unknown

ESTIMATED DELTA V

66. Estimated Highest Delta V (Researcher Determined) 4
    (0) Reconstruction Delta V coded

    Estimated Delta V
    (1) Less than 10 kmph
    (2) ≥ 10 kmph but < 25 kmph
    (3) ≥ 25 kmph but < 40 kmph
    (4) ≥ 40 kmph but < 55 kmph
    (5) ≥ 55 kmph

    Other estimates of damage severity
    (6) Minor
    (7) Moderate
    (8) Severe

    (9) Unknown

INSPECTION TYPE

67. Type of Vehicle Inspection Φ
    (0) No inspection
    (1) Vehicle fully repaired-no damage evident
    (2) Partial inspection (specify): _____
    (3) Complete inspection

DELTA V EVENT NUMBER

68. Delta V Event Number 1
    _____ Code the accident event sequence number that resulted in the Delta V that has been coded above for this vehicle
    (99) Unknown

*** IF THE CDS APPLICABLE VEHICLE WAS NOT INSPECTED (I.E., GV67 = 0), ***

DO NOT COMPLETE THE EXTERIOR AND INTERIOR VEHICLE FORMS

*** IF GV07 DOES NOT EQUAL 01-49, DO NOT COMPLETE ***

THE EXTERIOR VEHICLE, INTERIOR VEHICLE,

OCCUPANT ASSESSMENT, AND OCCUPANT INJURY FORMS.

U.S. Department of Transportation
National Highway Traffic Safety Administration

EXTERIOR VEHICLE FORM

NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number: 10
2. Case Number - Stratum: 9628
3. Vehicle Number: 02

VEHICLE IDENTIFICATION

VIN: 1Y1SK5162LZ- - - - - -
Model Year: 90
Vehicle Make (specify): NUMMI GEO
Vehicle Model (specify): PRIZM 4dr

LOCATOR

Locate the end of the damage with respect to the vehicle's damaged center point or bumper corner for end impacts or an undamaged axle for side impacts.

Specific Impact No.	Location of Direct Damage	Location of Field L	Location of Max Crush
1	F-(R) half	(R) corner inward	F-(R) corner

CRUSH PROFILE IN CENTIMETERS

NOTES: Identify the plane at which the C-measurements are taken (e.g., at bumper, above bumper, at sill, above sill, etc.) and label adjustments (e.g., free space).

Measure C1 to C6 from driver to passenger side in front or rear impacts and rear to front in side impacts.

Free space value is defined as the distance between the baseline and the original body contour taken at the individual C locations. This may include the following: bumper lead, bumper taper, side protrusion, side taper, etc. Record the value for each C-measurement and maximum crush.

Use as many lines/columns as necessary to describe each damage profile.

Specific Impact Number	Plane of Impact C-Measurements	Direct Damage Width (CDC)	Direct Damage Max Crush	Field L	C_1	C_2	C_3	C_4	C_5	C_6	±D
		Photographs			Only						

ORIGINAL SPECIFICATIONS WORK SHEET

Wheelbase	95.7	inches	x 2.54	=	243.1	cm
Overall Length	170.7	inches	x 2.54	=	433.6	cm
Maximum Width	65.2	inches	x 2.54	=	165.6	cm
Curb Weight	2,321	pounds	x 0.4536	=	1,052.8	kg
Average Track 56.3 55.5	55.9	inches	x 2.54	=	142.0	cm
Front Overhang	___.___	inches	x 2.54	=	___	cm
Rear Overhang	___.___	inches	x 2.54	=	___	cm
Undeformed End Width	___.___	inches	x 2.54	=	___	cm
Engine Size: cyl/displ.	____	cc	x 0.001	=	4cyl 1.6	L
	97	CID	x 0.0164	=	1.6	L

Specs. per

SPECIAL CRASH INVESTIGATION ADDENDUM

Submodel Designation: {specify} UNK **Color:** {specify} White **Repair Cost:** $ UNK

Transmission: {circle} Automatic | Manual **Speed:** 3-speed | 4-speed | 5-speed | Other:

Steering: {circle} Power-assisted | Manual **Type:** rack-and-pinion | worm-and-gear | Other

{please describe}: UNK

Brakes: {circle} Power-assisted | Manual **Type:** 4-wheel disc | 4-wheel drum | 4-wheel hydraulic | front disc, rear drum | Other:

Observed Defects: {specify} none per photos

Fleet Type: {circle} Private vehicle | Rental vehicle | Leased vehicle | Commercial vehicle | Other

{please describe}:

VEHICLE DAMAGE SKETCH

TIRE–WHEEL DAMAGE

	a. Rotation physically restricted	b. Tire deflated
RF	1	2
LF	2	2
RR	2	2
LR	2	2

(1) Yes (2) No (8) NA (9) Unk.

TYPE OF TRANSMISSION

Unk ☐ Manual ☐ Automatic

END SHIFT ≥ 10 CM

☐ Yes ☒ No

ORIGINAL SPECIFICATIONS

Wheelbase	243	cm
Overall Length	434	cm
Maximum Width	166	cm
Curb Weight	1053	kg
Average Track	142	cm
Front Overhang	UNK	cm
Rear Overhang	UNK	cm
Undeformed End Width	UNK	cm
Engine Size: cyl./displ.	4 cyl / 1.6	L

WHEEL STEER ANGLES

(For locked front wheels or displaced rear axles only)

RF	± 5	°
LF	± 0	°
RR	± 0	°
LR	± 0	°

Within ± 5 degrees

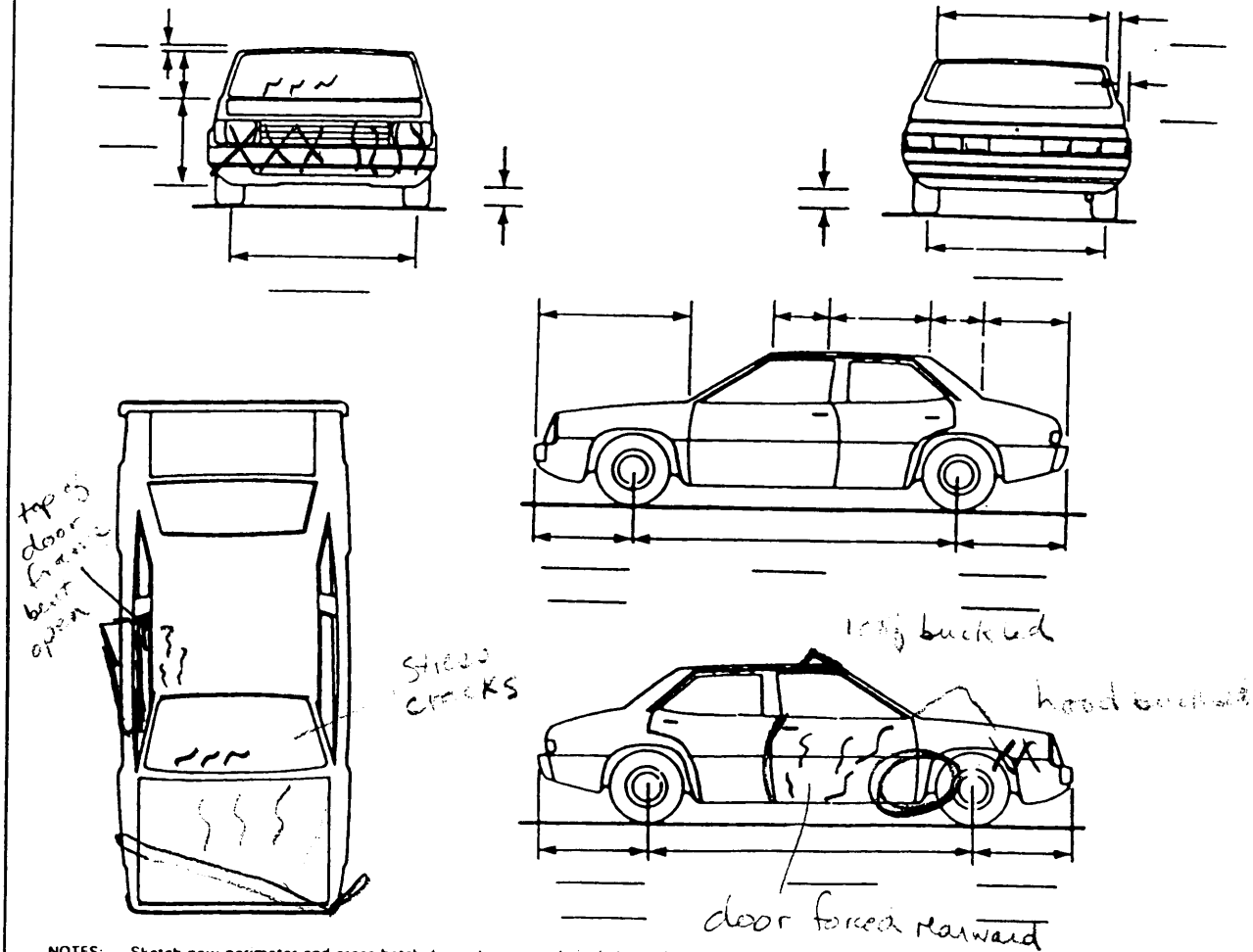
DRIVE WHEELS

☒ FWD ☐ RWD ☐ 4WD

Approximate Cargo Weight

UNK kg

MEASUREMENTS IN CENTIMETERS



NOTES: Sketch new perimeter and cross hatch direct damage and single hatch induced damage on all views. Annotate observations which might be useful in reconstructing the accident (e.g., grass in tire bead, direction of striations, scuff on sidewalls, etc.). If pulling trailer, sketch type of trailer and damage received on the back of this page.

Annotate any damage caused by extrication such as component removal by torching, prying, or hydraulic shears.

CHEVROLET Division, General Motors Corp.,

Type of Body Pass. Cap.	Model	O'r-all Length	Ship. Wt.	Cu. Ft. Vol.	Factory List Pr.	Factory Del'd Pr.
1990 **GEO METRO Series, FWD, 1.0 L., L3 (61") EFI Gas Eng. (LP2) (Isuzu Motors) (Sept., 1989)** **Bore & Stroke 2.91"×3.03; Tax. H.P. 10.16; 1.0 Liter**						
4-Ps. 2-dr. H.B. Coupe	1MR08	146.06"	1,541	275.0	$6,950.00	$7,285.00
4-Ps. 2-dr. Convertible	1MR67	146.06"	NA	275.0	NA	NA
4-Ps. 4-dr. H.B. Sedan	1MR68	150.0"	1,614	275.0	7,250.00	7,585.00
4-Ps. 2-dr. H.B. Coupe, Auto. Tr.	1HR08	146.06"	1,560	275.0	6,695.00	7,030.00
4-Ps. 2-dr. Convertible, Auto. Tr.	1HR67	146.06"	NA	275.0	NA	NA
4-Ps. 4-dr. H.B. Sedan, Auto. Tr.	1HR68	150.0"	1,637	275.0	7,415.00	7,750.00
GEO METRO XFI, FWD, 89.17" w.b., 5-Spd. Manual Trans.; Sedan 93.11" w.b.						
4-Ps. 2-dr. H.B. Coupe	1MS08	146.06"	1,537	275.0	$5,995.00	$6,330.00

GEO METRO Options: Transmission: Auto, 23 lbs., $NA; **Air Conditioning,** 18.3 lbs., $690; **Defogger,** 0.10 lbs., $NA; **Radio,** 2.7 lbs., $NA.

GEO PRIZM Series: FWD, 1.8 L., 4-Cyl. (97") MPFI Gas Eng. (L01) DOHC (Isuzu Motors)
Bore & Stroke 3.2"×3.0"; Tax. H.P. 16.38; P.D. 97 cu. in., 1.8 Liter 97 in³ = 1.6L

GEO PRIZM FWD—95.7" w.b.						
5-Ps. 4-dr. N.B. Sedan, Man. Tr.	1SK19	170.7"	2,248	338.0	$9,660.00	$9,995.00
5-Ps. 4-dr. N.B. Sedan, Auto. Tr.	1SK19	170.7"	2,288	338.0	10,080.00	10,415.00
5-Ps. 4-dr. H.B. Sedan, Man. Tr.	1SK68	170.7"	2,291	338.0	9,960.00	10,295.00
5-Ps. 4-dr. H.B. Sedan, Auto. Tr.	1SK68	170.7"	2,331	338.0	10,380.00	10,715.00
GEO PRIZM GSI, FWD—95.7" w.b.						
5-Ps. 4-dr. N.B. Sedan, Man. Tr.	1SL19	170.7"	2,366	338.0	$12,235.00	$12,570.00
5-Ps. 4-dr. N.B. Sedan, Auto. Tr.	1SL19	170.7"	2,406	338.0	13,010.00	13,345.00
5-Ps. 4-dr. H.B. Sedan, Man. Tr.	1SL68	170.7"	2,430	338.0	12,620.00	12,955.00
5-Ps. 4-dr. H.B. Sedan, Auto. Tr.	1SL68	170.7"	2,470	338.0	13,310.00	13,645.00

GEO PRIZM Options: Air Conditioning, 46.3 lbs.; **Power Door Locks,** 4.4 lbs.; **Power Windows,** 14.6 lbs.; **Power Steering,** 19.8 lbs.; **Sun Roof,** 31.3 lbs..; **Cruise Control,** 6.2 lbs. **Auto. Transmission** 39.7 lbs. **Tilt Wheel,** 2.9 lbs.; **Radio,** AM/FM, 3.1 lbs.

GEO STORM Series—FWD, 1.6 L., L-4 (97") MPFI (L07) Gas Eng. (Isuzu Motors)
Bore & Stroke 3.15"×3.11"; Tax. H.P. 19.85; P.D. 97 cu. in., 1.6 Liter

GEO STORM FWD—96.5" w.b.						
4-Ps. 2-dr. H.B. Coupe, Man. Tr.	1RF77	163.4"	2,189	322.0	$10,390.00	$10,705.00
4-Ps. 2-dr. H.B. Coupe, Auto. Tr.	1RF77	163.4"	2,229	322.0	10,935.00	11,250.00
GEO STORM GSI FWD, 96.5" w.b.						
4-Ps. 2-dr. H.B. Coupe, Man. Tr.	1RT77	163.4"	2,299	322.0	$11,650.00	$11,965.00
4-Ps. 2-dr. H.B. Coupe, Auto. Tr.	1RT77	163.4"	2,339	322.0	12,350.00	12,665.00

GEO STORM Options: Air Conditioning, 18.4 lbs., $690; **Radios:** AM/FM, 1.4 lbs.; w/Cassette, 1.7 lbs.

GEO TRACKER Series, 4WD, 1.6 L., L4 (97") TBI EFI Gas Eng. (L55) (Suzuki)
Bore & Stroke 2.95"×3.54"; Tax. H.P. 13.924; P.D. 97 cu. in., 1.6 Liter

GEO TRACKER FWD—86.61" w.b.						
2-Ps. 2-dr. Convertible, Man. Tr.	J10367	142.52"	2,155	344.0	$11,795.00	$12,110.00
2-Ps. 2-dr. Convertible, Auto. Tr.	J10367	142.52"	2,195	344.0	NA	NA
2-Ps. 2-dr. Hardtop, Manual Tr.	J10316	142.52"	2,188	344.0	NA	NA
2-Ps. 2-dr. Hardtop, Auto. Tr.	J10316	142.52"	2,228	344.0	NA	NA

GEO TRACKER Options: Auto. Trans., 39.7 lbs.; **Defogger,** 0.2 lbs.; **Tinted Glass; Air Conditioning,** 35.7 lbs.

LUMINA Series, FWD, 2.5 L., L4 (151") TBI Gas Eng. (LR8) (GMC Engine)
Bore & Stroke 4.1"×3.0"; Tax. H.P. 26.9; P.D. 151 cu. in., 2.5 Liter

LUMINA FWD—107.5" w.b., Auto. Trans.						
6-Ps. 2-dr. N.B. Coupe, 3-Spd. Auto.	1WL27	198.4"	2,985	439.0	$12,115.00	$12,615.00
6-Ps. 4-dr. N.B. Sedan, 3-Spd. Auto.	1WL69	198.4"	3,066	435.0	12,315.00	12,815.00

LUMINA EURO Series, FWD, 3.1 L., 6-Cyl. (191") MPFI Gas Eng. (LH0) (GMC)
Bore & Stroke 3.6"×3.3"; Tax. H.P. 31.10; P.D. 191 cu. in., 3.1 Liter

6-Ps. 2-dr. N.B. Coupe, 3-Spd. Auto.	1WN27	198.4"	3,080	439.0	$14,040.00	$14,515.00
6-Ps. 2-dr. N.B. Sedan, 3-Spd. Auto.	1WN69	198.4"	3,167	435.0	14,240.00	14,715.00
6-Ps. 2-dr. N.B. Coupe, 4-Spd. Auto.	1WN27/ZV8	198.4"	3,080	439.0	14,240.00	14,715.00
6-Ps. 2-dr. N.B. Sedan, 4-Spd. Auto.	1WN69/ZV8	198.4"	3,167	435.0	14,440.00	14,915.00

LUMINA Options: Engine: 3.1 L., V6 (191") MPFI Gas (GMC), 54.3 lbs., $660; **Transmission,** 4-Spd. Auto., 35.2 lbs., $200; **Split Seat,** 10.6 lbs., $NA; **Side Door Lock,** Coupe, 4 lbs., $190; Sedan, 6.2 lbs., $230; **Power Windows,** Coupe, 5.3 lbs., $ Equip. Group 1; **Air Conditioning,** 36.5 lbs., $805; **Stereo Radio,** 3.9 lbs., $140.

LUMINA APV Series: Cargo Van—3.1 L., V6 (189") TBI Gas Eng. (LG6) (GMC)
Bore & Stroke 3.5"×4.4"; Tax. H.P. 29.4; P.D. 189 cu. in., 3.1 Liter, 109.8" w.b.

2-Ps. 3-dr. Cargo Van, 3-Spd. Auto.	1UM05	194.2"	3,146	542.0	$13,995.00	$14,495.00
7-Ps. 3-dr. Van, 3-Spd. Auto., Y91	1UM06	194.2"	3,345	542.0	15,745.00	16,245.00

LUMINA APV VAN Options: Seating: 6-Pass, 55.1 lbs., $510; 7-Pass., 222 lbs., $660; **6-Way Power Locks,** 6 lbs., $255; **Power Window,** 4.4 lbs., $ Equip. Group #1; **Defogger,** .6 lb., $160; **Air Conditioning,** 45.2 lbs., $805; **Level Control,** 12.8 lbs., $170; **AM/FM Stereo,** 1.5 lbs., $140; **AM/FM Seek & Scan,** 2.0 lbs., $256; **Power Seat,** 6-Way, $270.

CDC WORKSHEET

CODES FOR OBJECT CONTACTED

(01-30) — Vehicle Number

Noncollision
- (31) Overturn — rollover (excludes end-over-end)
- (32) Rollover—end-over-end
- (33) Fire or explosion
- (34) Jackknife
- (35) Other intraunit damage (specify): _____
- (36) Noncollision injury
- (38) Other noncollision (specify): _____
- (39) Noncollision — details unknown

Collision With Fixed Object
- (41) Tree (≤ 10 cm in diameter)
- (42) Tree (> 10 cm in diameter)
- (43) Shrubbery or bush
- (44) Embankment
- (45) Breakaway pole or post (any diameter)

Nonbreakaway Pole or Post
- (50) Pole or post (≤ 10 cm in diameter)
- (51) Pole or post (> 10 cm but ≤ 30 cm in diameter)
- (52) Pole or post (> 30 cm in diameter)
- (53) Pole or post (diameter unknown)
- (54) Concrete traffic barrier
- (55) Impact attenuator
- (56) Other traffic barrier (includes guardrail) (specify): _____
- (57) Fence
- (58) Wall
- (59) Building
- (60) Ditch or culvert
- (61) Ground
- (62) Fire hydrant
- (63) Curb
- (64) Bridge
- (68) Other fixed object (specify): _____
- (69) Unknown fixed object

Collision with Nonfixed Object
- (70) Passenger car, light truck, van, or other vehicle not in-transport
- (71) Medium/heavy truck or bus not in-transport
- (72) Pedestrian
- (73) Cyclist or cycle
- (74) Other nonmotorist or conveyance _____
- (75) Vehicle occupant
- (76) Animal
- (77) Train
- (78) Trailer, disconnected in transport
- (79) Object fell from vehicle in-transport
- (88) Other nonfixed object (specify): _____
- (89) Unknown nonfixed object
- (98) Other event (specify): _____
- (99) Unknown event or object

DEFORMATION CLASSIFICATION BY EVENT NUMBER

Accident Event Sequence Number	Object Contacted	(1) (2) Direction of Force (degrees)	Incremental Value of Shift	(3) Deformation Location	(4) Specific Longitudinal or Lateral Location	(5) Specific Vertical or Lateral Location	(6) Type of Damage Distribution	(7) Deformation Extent
01	01	+10	00	F	Z	E	W	Φ4

COLLISION DEFORMATION CLASSIFICATION

HIGHEST DELTA "V"

Accident Event Sequence Number	Object Contacted	(1) (2) Direction of Force	(3) Deformation Location	(4) Longitudinal or Lateral Location	(5) Vertical or Lateral Location	(6) Type of Damage Distribution	(7) Deformation Extent
4. 01	5. 01	6. 12	7. F	8. 2	9. E	10. W	11. 04

Second Highest Delta "V"

12.	13.	14.	15.	16.	17.	18.	19.

CRUSH PROFILE IN CENTIMETERS

The crush profile for the damage described in the CDC(s) above should be documented in the appropriate space below. (ALL MEASUREMENTS ARE IN CENTIMETERS.)

HIGHEST DELTA "V"

20. L	21. C_1	C_2	C_3	C_4	C_5	C_6	22. ±D
							+ =

Second Highest Delta "V"

23. L	24. C_1	C_2	C_3	C_4	C_5	C_6	25. ±D
							+ =

26. Undeformed End Width (Coded when highest severity impact is an end plane impact.) 999
- ___ Code to the nearest centimeter
- (250) 250 centimeters or more
- (998) No highest severity end plane impact
- (999) Unknown

27. Direct Damage Width (For highest severity impact) 999
- ___ Code to the nearest centimeter
- (250) 250 centimeters or more
- (999) Unknown

28. Original Wheelbase 243
- ___ Code to the nearest centimeter
- (650) 650 centimeters or more
- (999) Unknown

95.7 inches X 2.54 = 243 centimeters

29. Original Average Track Width 142
- ___ Code to the nearest centimeter
- (185) 185 centimeters or more
- (999) Unknown

55.9 inches X 2.54 = 142 centimeters

NASS CDS INTERVIEW FORM:
CASE VEHICLE DRIVER

U.S. Department of Transportation

National Highway Traffic Safety Administration

BEST AVAILABLE

INTERVIEW FORM (A)

NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number: 10
2. Case Number - Stratum: 9628
3. Vehicle Number: 01

Interviewee(s) Role or Name(s): Son of driver (Not present at hospitals)

Phone number:

Review all available information and interview questions prior to conducting interview(s) to ensure the acquisition of all pertinent data.

If the driver was not the person interviewed, was an appointment made for a follow-up interview?

DRIVER'S DESCRIPTION OF ACCIDENT EVENTS

Has no knowledge of crash or driver's circumstances.

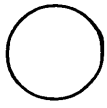
Will sign release

Obituary indicates driver had been play golf earlier in the afternoon.

OCCUPANT'S DESCRIPTION OF ACCIDENT EVENTS

SPECIFIC QUESTIONS TO ASK INTERVIEWEE

ACCIDENT DIAGRAM



NORTH

Use this diagram to aid in relating interviewee accident trajectory data (i.e., pre-impact to FRP orientations) to identifiable objects in the environment.

CRASH DATA INFORMATION

IF POSSIBLE OBTAIN THIS INFORMATION FROM THE DRIVER:

SOURCE OF INFORMATION:	[ ] Driver [ ] Other occupant [X] Relative/friend
TRAVEL DIRECTION?	[ ] North [X] South [ ] East [ ] West (Or where were they coming from or going to?) obituary
LANE?	[X] 1 [ ] 2 [ ] 3 [ ] 4 [ ] Other PAR **Note: lane 1 is the right curb lane**
ROAD CONDITION?	[ ] Dry [X] Wet [ ] Snow [ ] Slush [ ] Ice [ ] Sand, dirt, oil [ ] Other (specify) PAR
WEATHER CONDITIONS? (Check all that apply)	[ ] No adverse conditions PAR [X] Rain [ ] Fog [ ] Sleet [ ] Hail [ ] Snow [ ] Other (specify)
SIGN OR SIGNAL PRESENT? (check all that apply) double yellow lane lines photos	[ ] Traffic control signal (includes flashing beacons, lane control signals, and green / amber / red signal) [ ] Stop sign [ ] Yield sign [ ] School zone sign [ ] Other regulatory sign (No "U" turn, left turn only, wrong way, etc.) specify: _____ [ ] Warning sign (Winding road sign, stop ahead, intersection signs, etc.) specify: _____ [ ] Miscellaneous control (including railroad controls) specify: _____ [ ] None [ ] Unknown
WAS THE CONTROL FUNCTIONING PROPERLY?	[✓] No traffic control device present [ ] Not functioning properly (includes defaced, badly worn, covered with snow, rotated etc.) specify: [ ] Functioning properly [ ] Unknown photos
SPEED BEFORE THE IMPACT? (in mph)	[ ] Stopped [ ] 11-20 [ ] 31-40 [ ] 51-60 [ ] 70+ [ ] 1-10 [ ] 21-30 [ ] 41-50 [ ] 61-70 [✓] Unknown
BEFORE IMPACT, INTENDING TO ... ? (check all that apply)	[✓] Go straight [ ] Stopped [ ] Turn left [ ] Turn right [ ] Slow down [ ] Accelerate [ ] Back up [ ] Change lanes to right [ ] Other (specify): PAR [ ] Change lanes to left
CONTROL LOSS DUE TO WEATHER OR MECHANICAL PROBLEMS?	[✓] No [ ] Unknown [ ] Yes (describe) PAR
AVOIDANCE ACTIONS?	[ ] None [ ] Braking with lock-up [ ] Accelerating [✓] Unknown [ ] Braking without lock-up [ ] Steering left [ ] Other- specify: [ ] Releasing brakes [ ] Steering right
LOCATION OF VEHICLE AT TIME OF IMPACT?	[✓] Original travel lane [ ] Different travel lane [ ] In intersection [ ] Off roadway to right [ ] Off roadway to left [ ] Other (specify): _____ PAR
SPEED AT THE TIME OF IMPACT? (in mph)	[ ] Stopped [ ] 11-20 [ ] 31-40 [ ] 51-60 [ ] 70+ [ ] 1-10 [ ] 21-30 [ ] 41-50 [ ] 61-70 [✓] Unknown
DESCRIBE ALL THE IMPACTS to the vehicle and how this vehicle moved to its stopped position, after the collision?	

VEHICLE INFORMATION

ROLLOVER DATA

DID THIS VEHICLE ROLL OVER DURING THE CRASH?

[ ] YES - - ASK THE FOLLOWING QUESTIONS

[✓] NO - - SKIP TO "FIRE DATA" BELOW
[ ] UNKNOWN - - SKIP TO "FIRE DATA" BELOW

ROLLOVER BEGAN	[ ] On roadway [ ] On shoulder [ ] On roadside or median [ ] Unknown
ROLLOVER CAUSE?	[ ] Other vehicle (specify vehicle number) ____ [ ] Contact to object (specify): _____ [ ] Other cause (specify): _____ [ ] Unknown
DIRECTION OF VEHICLE ROLL?	[ ] Toward the right (passenger side) [ ] Toward the left (driver side) [ ] End-over-end [ ] Unknown
NUMBER OF TURNS	____ Number of QUARTER TURNS [ ] Unknown ____ Number of COMPLETE TURNS
PLANE IN CONTACT WITH GROUND AT FINAL REST?	[ ] Left side [ ] Top [ ] Right side [ ] Wheels [ ] Unknown

FIRE DATA

DID THIS VEHICLE EXPERIENCE A FIRE?

[ ] YES - - ASK THE FOLLOWING QUESTIONS

[✓] NO - - SKIP THIS SECTION
[ ] UNKNOWN - - SKIP THIS SECTION

FIRE STARTED, OR SMOKE WAS FIRST SEEN ...	[ ] Under the hood [ ] In the trunk/cargo area [ ] Behind the instrument panel [ ] Under the vehicle [ ] In the passenger compartment [ ] From other involved vehicle [ ] Unknown
FIRE START WITH THE ELECTRICAL SYSTEM? [ ] No [ ] Unknown	[ ] Yes (specify):
FIRE START WITH THE FUEL SYSTEM? [ ] No [ ] Unknown	[ ] Yes - - specify Which part of the fuel system may have been involved? [ ] Fuel tank [ ] Fuel lines [ ] Engine compartment (specify component if known) [ ] Unknown

Describe any additional rollover or fire information here:

ADDITIONAL VEHICLE INFORMATION

YEAR, MAKE AND MODEL?	Year: 19 9 4 Make: NISSAN Model: MAXIMA
PREVIOUS OR POST-CRASH DAMAGE?	[ ] No [ ] Yes - describe: [✓] Unknown
DOORS OR HATCH OPEN DURING THE CRASH?	[✓] No [ ] Yes [ ] LF [ ] RF [ ] LR [ ] RR [ ] HATCH [ ] OTHER _____ [ ] Unknown Photos
WINDOWS BREAK DURING THE CRASH?	[✓] No **Check all that apply** [ ] Yes [ ] WS [ ] LF [ ] RF [ ] LR [ ] RR [ ] BL [ ] Roof [ ] Other [ ] Unknown photos
WINDOW PRECRASH STATUS	[C] WS [U] LF [U] RF [U] LR [U] RR [U] BL [N/A] Roof [N/A] Other "O" = open "C" = Closed "P" = partially open "U" = Unknown
GLOVE COMPARTMENT DOOR OPEN DURING THE CRASH?	[ ] No [ ] Yes - describe: [✓] Unknown
CARGO IN THE VEHICLE?	[ ] No [✓] Unknown [ ] Yes - describe: Approximate weight - _____ pounds
VEHICLE MILEAGE	53,915 miles [ ] Unknown PAR
IF VEHICLE HAS NOT BEEN INSPECTED	Current location of the vehicle: Police impound / Contact person:

Detail any notes, questions to ask interviewee (i.e., rescue personnel damage to vehicle) or directions to vehicle location:

SPECIAL CRASH INVESTIGATION ADDENDUM: DRIVER INFORMATION	
Do you recall the type of development in the area of the crash?	[ ] Residential [ ] Commercial [ ] Industrial [ ] Agricultural [ ] Undeveloped [ ] School [ ] Other: _____
What were the weather conditions at the time of the crash?	[ ] Clear (no clouds, no precipitation) [ ] Cloudy (partially cloudy, no precipitation) [ ] Overcast (full cloud cover, no precipitation) [ ] Precipitating [ ] Unknown
What was the type of precipitation?	[ ] No precipitation [ ] Unknown [ ] Raining [ ] Freezing rain [ ] Sleeting [ ] Snowing [ ] Hailing
What was the condition of the road surface?	[ ] Dry [ ] Wet [ ] Snowy, slushy [ ] Icy [ ] Other (e.g., sand, dirt, oil on surface, etc.) [ ] Unknown
How would you describe the amount of traffic at the time of the crash?	[ ] Heavy [ ] Moderate [ ] Light [ ] No other traffic present
What is your occupation?	[ ] Professional [ ] Technical [ ] Government official [ ] Management [ ] Proprietors [ ] Sales [ ] Clerical [ ] Craftsman and foreman [ ] Service worker [ ] Student [ ] Farmers and farm-managers [ ] Farm labors and foreman [ ] Private household worker [ ] Housewife [ ] Other: _____
How long have you driven this vehicle?	Years: _____ Months: _____
How many miles do you think that you have driven it in the last 12-month period?	Miles: _____
How often do you drive this particular roadway?	[ ] Daily [ ] Twice weekly [ ] Once weekly [ ] Twice monthly [ ] Once monthly [ ] Very infrequently [ ] First time on road
Where were you coming from just prior to the crash?	[ ] Home [ ] Work [ ] School [ ] Shopping [ ] Social/recreational [ ] Restaurant [ ] Personal business [ ] Other: _____
Where were you intending to go when the crash occurred?	[ ] Home [ ] Work [ ] School [ ] Shopping [ ] Social/recreational [ ] Restaurant [ ] Personal business [ ] Other: _____

OCCUPANT DATA QUESTIONS

HOW MANY PEOPLE WERE IN THE VEHICLE AT THE TIME OF THE CRASH?

	DRIVER	OCCUPANT # ___	OCCUPANT # ___
SEATING POSITION? Front Left (FL) Second Left (2L) Front Middle (FM) Second Middle (2M) Front Right (FR) Second Right (2R) Third Left (3L) Other (SPECIFY in block) Third Middle (3M) Third Right (3R)	FRONT LEFT	None	
SEX, HEIGHT, WEIGHT, AND AGE? **CIRCLE DRIVER'S RACE:** photo w/ obituary (White) Black American Indian Eskimo or Aleut Asian or Pacific Islander Other (specify): Unknown	[✓] M [ ] F - Not pregnant [ ] F - Pregnant - # of months ____ [ ] F - Unk. if pregnant HEIGHT: _____ WEIGHT: _____ AGE: _____ DRIVER OF HISPANIC ORIGIN? [ ] Y [ ] N [✓] U	[ ] M [ ] F - Not pregnant [ ] F - Pregnant - # of months ____ [ ] F - Unk. if pregnant HEIGHT: _____ WEIGHT: _____ AGE: _____ XXXX	[ ] M [ ] F - Not pregnant [ ] F - Pregnant - # of months ____ [ ] F - Unk. if pregnant HEIGHT: _____ WEIGHT: _____ AGE: _____ XXXX
OCCUPANT POSTURE A) Kneeling or standing on seat B) Lying on or across seat C) Kneeling, standing or sitting in front of seat D) Sitting sideways, turned to side or back E) Sitting on console F) Lying back in reclined position G) Other (specify) H Unknown	[ ] Leaning to left [ ] Leaning to right [ ] Sitting upright [✓] Unknown Indicate all letters that apply and describe if other than above	[ ] Leaning to left [ ] Leaning to right [ ] Sitting upright [ ] Unknown Indicate all letters that apply and describe if other than above	[ ] Leaning to left [ ] Leaning to right [ ] Sitting upright [ ] Unknown Indicate all letters that apply and describe if other than above
FEET AND HANDS/ARMS LOCATION JUST PRIOR TO IMPACT FEET A) On floor or foot controls B) One or both on dash C) One or both on seat D) Other (specify) E) Unknown HANDS / ARMS F) Both hands on steering wheel G) One on wheel, other hand resting or adjusting a control (specify hand on wheel and control involved) H) Dialing a cellular phone (specify location and type of phone) I) Holding a cellular phone (specify location and type of phone) J) Bracing with one or both hands K) On lap L) One or both out of window (specify) M) Other (specify) N) Unknown	Indicate all letters that apply and further describe as needed unk	Indicate all letters that apply and further describe as needed	Indicate all letters that apply and further describe as needed

OCCUPANT DATA CONTINUED ON NEXT PAGE

BEST AVAILABLE

OCCUPANT DATA QUESTIONS (continued)

	DRIVER	OCCUPANT # ___	OCCUPANT # ___
BACK UP AGAINST THE SEAT BACK?	[ ] No (describe) [ ] Yes [✓] Unknown	[ ] No (describe) [ ] Yes [ ] Unknown	[ ] No (describe) [ ] Yes [ ] Unknown
ADJUSTABLE SEAT *TRACK*, IF "YES" WHERE WAS THE TRACK PRIOR TO IMPACT?	[ ] Not adjustable [ ] Seat all the way forward [ ] Between forward and middle [ ] At middle position [ ] Between middle and rear position [ ] Seat all the way rearward [✓] Unknown	[ ] Not adjustable [ ] Seat all the way forward [ ] Between forward and middle [ ] At middle position [ ] Between middle and rear position [ ] Seat all the way rearward [ ] Unknown	[ ] Not adjustable [ ] Seat all the way forward [ ] Between forward and middle [ ] At middle position [ ] Between middle and rear position [ ] Seat all the way rearward [ ] Unknown
ADJUSTABLE SEAT *BACK*, IF "YES" WHERE WAS THE *BACK* PRE AND POST IMPACT	PRE POST [ ] [ ] Not adjustable [ ] [ ] Completely upright [ ] [ ] Slightly reclined [ ] [ ] Completely reclined [ ] Slightly forward of upright [ ] Completely forward [✓] [✓] Unknown	PRE POST [ ] [ ] Not adjustable [ ] [ ] Completely upright [ ] [ ] Slightly reclined [ ] [ ] Completely reclined [ ] Slightly forward of upright [ ] Completely forward [ ] [ ] Unknown	PRE POST [ ] [ ] Not adjustable [ ] [ ] Completely upright [ ] [ ] Slightly reclined [ ] [ ] Completely reclined [ ] Slightly forward of upright [ ] Completely forward [ ] [ ] Unknown

TILT STEERING COLUMN ADJUSTMENT PRIOR TO IMPACT

[ ] Not adjustable [ ] Full up [ ] Between full up and center
[ ] Center [ ] Between center and full down
[ ] Full down [✓] Unknown

TELESCOPING STEERING COLUMN PRIOR TO IMPACT

[ ] Not adjustable [ ] Full back [ ] Between full back and midpoint
[ ] Midpoint [ ] Between midpoint and full forward
[ ] Full forward [✓] Unknown

Did this vehicle have a cellular phone in it during the crash? UNK

[ ] No
[ ] Yes - describe type: ______________________
(e.g., portable, mounted in vehicle, flip phone, etc.)
[ ] Unknown

(Note to researcher: try to determine any driver distractions without implying fault)

Was the driver doing any of the following? (check all that apply - and specify)

[ ] Talking to or listening to another occupant (specify):
[ ] Was there a moving object in vehicle (specify):
[ ] Talking or listening on a cellular phone (specify):
[ ] Dialing a cellular phone (specify):
[ ] Adjusting climate control (specify):
[ ] Adjusting radio, CD or cassette player (specify): UNK
[ ] Using other device or object in vehicle (specify):
[ ] Sleepy / asleep (specify):
[ ] Distracted by outside person, object, or event (specify):
[ ] Eating or drinking (specify):
[ ] Smoking related (specify):
[ ] Other (specify):
[ ] Unknown

RESTRAINT INFORMATION

	DRIVER	OCCUPANT # ___	OCCUPANT # ___
TYPE OF SEAT BELT AVAILABLE NOTE: If a belt is not available for a seat position -- describe reason	[ ] Unknown [ ] Lap belt [ ] Shoulder belt [✓] Lap & Shoulder [ ] Not available * * Describe:	[ ] Unknown [ ] Lap belt [ ] Shoulder belt [ ] Lap & Shoulder [ ] Not available * * Describe:	[ ] Unknown [ ] Lap belt [ ] Shoulder belt [ ] Lap & Shoulder [ ] Not available * * Describe:
DO BELTS MOVE ALONG A MOTORIZED TRACK FOR THIS SEAT? (i.e., 2 - point automatic belt)	[ ] Unknown [ ] No [✓] Yes *	[ ] Unknown [ ] No [ ] Yes *	[ ] Unknown [ ] No [ ] Yes *
* IF "YES", WERE THEY WORKING PROPERLY?	[ ] Yes [ ] No (describe) UNK	[ ] Yes [ ] No (describe)	[ ] Yes [ ] No (describe)
ARE ANY BELTS ATTACHED TO THE DOOR? (i.e., 3 - point automatic belt)	[ ] Unknown [✓] No [ ] Yes *	[ ] Unknown [ ] No [ ] Yes *	[ ] Unknown [ ] No [ ] Yes *
* IF "YES", DOES IT CROSS:	___ Chest ___ Lap ___ Both	___ Chest ___ Lap ___ Both	___ Chest ___ Lap ___ Both
OCCUPANT WEARING ANY SEATBELT?	[ ] No [✓] Yes [ ] Unknown	[ ] No [ ] Yes [ ] Unknown	[ ] No [ ] Yes [ ] Unknown
SKIP THE FOLLOWING IF NO SEAT BELT WAS WORN			
TYPE OF BELT WORN?	[ ] Lap belt [✓] Shoulder belt [ ] Lap & Shoulder [ ] Unknown	[ ] Lap belt [ ] Shoulder belt [ ] Lap & Shoulder [ ] Unknown	[ ] Lap belt [ ] Shoulder belt [ ] Lap & Shoulder [ ] Unknown
LAP BELT SITUATED?	[ ] Low on lap [ ] Across stomach [ ] Other (specify): _____ _____ [✓] Unknown	[ ] Low on lap [ ] Across stomach [ ] Other (specify): _____ _____ [ ] Unknown	[ ] Low on lap [ ] Across stomach [ ] Other (specify): _____ _____ [ ] Unknown
SHOULDER BELT SITUATED?	[ ] Over shoulder [ ] Under the arm [ ] Behind back [ ] Behind seat [ ] Other (specify): _____ _____ [✓] Unknown	[ ] Over shoulder [ ] Under the arm [ ] Behind back [ ] Behind seat [ ] Other (specify): _____ _____ [ ] Unknown	[ ] Over shoulder [ ] Under the arm [ ] Behind back [ ] Behind seat [ ] Other (specify): _____ _____ [ ] Unknown
Describe any breaks, tears, or failures to any of the seat belts:			

EJECTION, ENTRAPMENT, MOBILITY INFORMATION

	DRIVER	OCCUPANT # ___	OCCUPANT # ___
ANY PART OF BODY THROWN OUTSIDE THE VEHICLE DURING THE CRASH?	[✓] No [ ] Yes * [ ] Unknown * If "Yes" - what part(s) were ejected, and what area of the vehicle was involved.	[ ] No [ ] Yes * [ ] Unknown * If "Yes" - what part(s) were ejected, and what area of the vehicle was involved.	[ ] No [ ] Yes * [ ] Unknown * If "Yes" - what part(s) were ejected, and what area of the vehicle was involved.
ANYONE PINNED IN THE VEHICLE?	[✓] No [ ] Yes ___ physically pinned ___ jammed doors ___ fire, etc. [ ] Unknown Detail any entrapment	[ ] No [ ] Yes ___ physically pinned ___ jammed doors ___ fire, etc. [ ] Unknown Detail any entrapment	[ ] No [ ] Yes ___ physically pinned ___ jammed doors ___ fire, etc. [ ] Unknown Detail any entrapment
HOW DID OCCUPANT(S) EXIT THE VEHICLE?	[ ] Fatal before removed [ ] Removed while unconscious, or not oriented to time or place [ ] Removed due to perceived serious injuries [ ] Exited with some assistance [✓] Exited under own power [ ] Fully ejected [ ] Unknown	[ ] Fatal before removed [ ] Removed while unconscious, or not oriented to time or place [ ] Removed due to perceived serious injuries [ ] Exited with some assistance [ ] Exited under own power [ ] Fully ejected [ ] Unknown	[ ] Fatal before removed [ ] Removed while unconscious, or not oriented to time or place [ ] Removed due to perceived serious injuries [ ] Exited with some assistance [ ] Exited under own power [ ] Fully ejected [ ] Unknown

Further describe any ejection, entrapment, or mobility information here:

How did occupant(s) depart the crash scene?			
	[✓] Ambulance	[ ] Ambulance	[ ] Ambulance
	[ ] Police or Tow vehicle	[ ] Police or Tow vehicle	[ ] Police or Tow vehicle
	[ ] Relative (specify)	[ ] Relative (specify)	[ ] Relative (specify)
	[ ] Friend (specify)	[ ] Friend (specify)	[ ] Friend (specify)
	[ ] Other (specify)	[ ] Other (specify)	[ ] Other (specify)

BEST AVAILABLE

AIR BAG INFORMATION

WAS THIS VEHICLE EVER EQUIPPED WITH AN AIR BAG?

[✓] YES (IF "YES" COMPLETE THIS SECTION)
[ ] NO [ ] UNKNOWN (IF "NO" OR "UNKNOWN" SKIP THIS SECTION)

	DRIVER SIDE FRONTAL	PASSENGER SIDE FRONTAL OCCUPANT # ___	"OTHER" AIR BAG SPECIFY: ______ OCCUPANT # ___
VEHICLE BEEN IN ANY PREVIOUS CRASHES? [ ] NO [ ] YES - continue to right [X] UNKNOWN - go to box below	[ ] Prior crash without deployment [ ] One prior crash with deployment [ ] >1, with at least one deployment [ ] Previous accident(s) unknown if deployed IF PRIOR DEPLOYMENT [ ] CHECK IF NOT REINSTALLED	[ ] Prior crash without deployment [ ] One prior crash with deployment [ ] >1, with at least one deployment [ ] Previous accident(s) unknown if deployed IF PRIOR DEPLOYMENT [ ] CHECK IF NOT REINSTALLED	[ ] Prior crash without deployment [ ] One prior crash with deployment [ ] >1, with at least one deployment [ ] Previous accident(s) unknown if deployed IF PRIOR DEPLOYMENT [ ] CHECK IF NOT REINSTALLED
TYPE OF AIR BAG?	[ ] Original equipment [ ] Retrofitted [ ] Replacement [X] Unknown	[ ] Original equipment [ ] Retrofitted [ ] Replacement [ ] Unknown	[ ] Original equipment [ ] Retrofitted [ ] Replacement [ ] Unknown
PRIOR SERVICE ON THE AIR BAG SYSTEM?	[ ] No [X] Unknown [ ] Yes - Specify:	[ ] No [ ] Unknown [ ] Yes - Specify:	[ ] No [ ] Unknown [ ] Yes - Specify:
DID AIR BAG INFLATE DURING THIS CRASH?	[✓] Yes [ ] Unknown [ ] No If "NO" was the wiring disconnected prior to the crash? [ ] Yes [ ] No [ ] Unk	[ ] Yes [ ] Unknown [ ] No If "NO" was the wiring disconnected prior to the crash? [ ] Yes [ ] No [ ] Unk	[ ] Yes [ ] Unknown [ ] No If "NO" was the wiring disconnected prior to the crash? [ ] Yes [ ] No [ ] Unk
WAS THIS PERSON WEARING ANY TYPE OF EYE-WEAR (EYE/ SUNGLASSES OR CONTACT LENSES) ANY JEWELRY, OR HAVE ANY OBJECTS IN MOUTH OR HAND?	[ ] No [ ] Unknown [✓] Yes - Specify: glasses	[ ] No [ ] Unknown [ ] Yes - Specify:	[ ] No [ ] Unknown [ ] Yes - Specify:
WAS THE AIR BAG IN THIS POSITION CONTACTED BY ANOTHER OCCUPANT?	[✓] No [ ] Unknown [ ] Yes - Specify: no other occ.	[ ] No [ ] Unknown [ ] Yes - Specify:	[ ] No [ ] Unknown [ ] Yes - Specify:

Describe any additional information here:

CHILD SAFETY SEAT INFORMATION

WAS THERE A PERSON IN A CHILD SAFETY SEAT IN THIS VEHICLE?

[ ] YES (IF "YES" COMPLETE THIS SECTION)

[✓] NO [ ] UNKNOWN (IF "NO" OR "UNKNOWN" SKIP THIS SECTION)

	DRIVER	OCCUPANT # ___	OCCUPANT # ___
MAKE AND MODEL OF THE SAFETY SEAT?			
TYPE OF SEAT?		[ ] Infant [ ] Toddler [ ] Convertible [ ] Booster [ ] Integral [ ] Other Specify: _____ [ ] Unknown	[ ] Infant [ ] Toddler [ ] Convertible [ ] Booster [ ] Integral [ ] Other Specify: _____ [ ] Unknown
DIRECTION FACING PRIOR TO THE CRASH?		[ ] Front [ ] Rearward [ ] Unknown	[ ] Front [ ] Rearward [ ] Unknown
VEHICLE'S SEAT BELT USED TO HOLD THE SEAT IN PLACE?		[ ] No [ ] Yes [ ] Unknown	[ ] No [ ] Yes [ ] Unknown
HOW WAS THE VEHICLE'S SEAT BELT SECURED TO THE CHILD SEAT?		[ ] Looped through designated rear framing studs [ ] Looped through arm rest slots [ ] Belt across safety shield [ ] Looped through rear frame outside the designated framing struts [ ] Other (specify): _____ [ ] Unknown	[ ] Looped through designated rear framing studs [ ] Looped through arm rest slots [ ] Belt across safety shield [ ] Looped through rear frame outside the designated framing struts [ ] Other (specify): _____ [ ] Unknown
WHAT WAS THE CHILD SEAT EQUIPPED WITH AT TIME OF PURCHASE?		[ ] Harness [ ] Shield [ ] Tether [ ] Unknown	[ ] Harness [ ] Shield [ ] Tether [ ] Unknown
ANY OF THESE ADDED AFTER THEY OWNED THE SAFETY SEAT?		[ ] Harness [ ] Shield [ ] Tether [ ] None [ ] Unknown	[ ] Harness [ ] Shield [ ] Tether [ ] None [ ] Unknown

Describe any additional information here:

INJURY INFORMATION

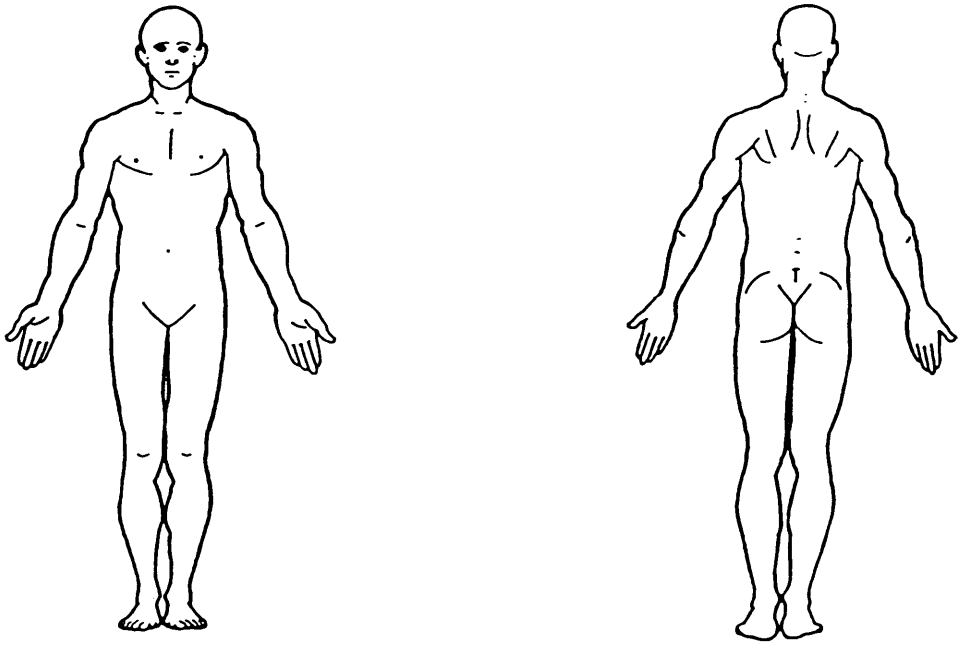
	DRIVER	OCCUPANT # ___	OCCUPANT # ___
WERE YOU INJURED? ▸ *If "YES" go to manikin page and record injuries in detail* ▸ *If "NO" ask next questions*	[ ] No [ ] Yes [ ] Unknown	[ ] No [ ] Yes [ ] Unknown	[ ] No [ ] Yes [ ] Unknown
DID YOU HAVE ANY OF THE FOLLOWING: *(If any injuries are checked, go to the manikin page and record location, lesion, and source)*	[ ] Cuts [ ] Abrasions [ ] Bruises [ ] Broken bones [ ] Head, skull, brain [ ] Internal injury [ ] Sprains, strains [ ] Other - specify on manikin	[ ] Cuts [ ] Abrasions [ ] Bruises [ ] Broken bones [ ] Head, skull, brain [ ] Internal injury [ ] Sprains, strains [ ] Other - specify on manikin	[ ] Cuts [ ] Abrasions [ ] Bruises [ ] Broken bones [ ] Head, skull, brain [ ] Internal injury [ ] Sprains, strains [ ] Other - specify on manikin
TRANSPORTED DIRECTLY FROM ACCIDENT SCENE FOR TREATMENT?	[ ] No [ ] Yes [ ] Unknown	[ ] No [ ] Yes [ ] Unknown	[ ] No [ ] Yes [ ] Unknown
RECEIVE ANY MEDICAL TREATMENT? (check all that apply)	[ ] Hospital [ ] Medical clinic [ ] Paramedics at scene [ ] Doctor's office [ ] Treated by self [ ] Unknown	[ ] Hospital [ ] Medical clinic [ ] Paramedics at scene [ ] Doctor's office [ ] Treated by self [ ] Unknown	[ ] Hospital [ ] Medical clinic [ ] Paramedics at scene [ ] Doctor's office [ ] Treated by self [ ] Unknown
HOSPITALIZED?	[ ] No [ ] Yes - # of days ____ [ ] Unknown	[ ] No [ ] Yes - # of days ____ [ ] Unknown	[ ] No [ ] Yes - # of days ____ [ ] Unknown
TREATED AND RELEASED FROM THE EMERGENCY ROOM?	[ ] No [ ] Yes [ ] Unknown	[ ] No [ ] Yes [ ] Unknown	[ ] No [ ] Yes [ ] Unknown
NAME OF MEDICAL TREATMENT FACILITY?			
RECEIVE ANY FOLLOW-UP TREATMENT?	[ ] No [ ] Yes - describe any additional injuries diagnosed: ____ [ ] Unknown	[ ] No [ ] Yes - describe any additional injuries diagnosed: ____ [ ] Unknown	[ ] No [ ] Yes - describe any additional injuries diagnosed: ____ [ ] Unknown
LOST ANY DAYS FROM WORK OR SCHOOL (COLLEGE) DUE TO THE CRASH?	[ ] No [ ] Not working prior to crash [ ] Yes - # of days ____ [ ] Unknown	[ ] No [ ] Not working prior to crash [ ] Yes - # of days ____ [ ] Unknown	[ ] No [ ] Not working prior to crash [ ] Yes - # of days ____ [ ] Unknown
IF REQUIRED: **WILL YOU SIGN A MEDICAL RELEASE?** * *If not an in-person interview, make appointment to have release signed*	[ ] No [ ] Yes* [ ] Unknown DATE: ____ TIME: ____ PLACE: ____	[ ] No [ ] Yes* [ ] Unknown DATE: ____ TIME: ____ PLACE: ____	[ ] No [ ] Yes* [ ] Unknown DATE: ____ TIME: ____ PLACE: ____

PSU Number 10 Case Number–Stratum 9628 Vehicle Number 01 Occupant Number 01

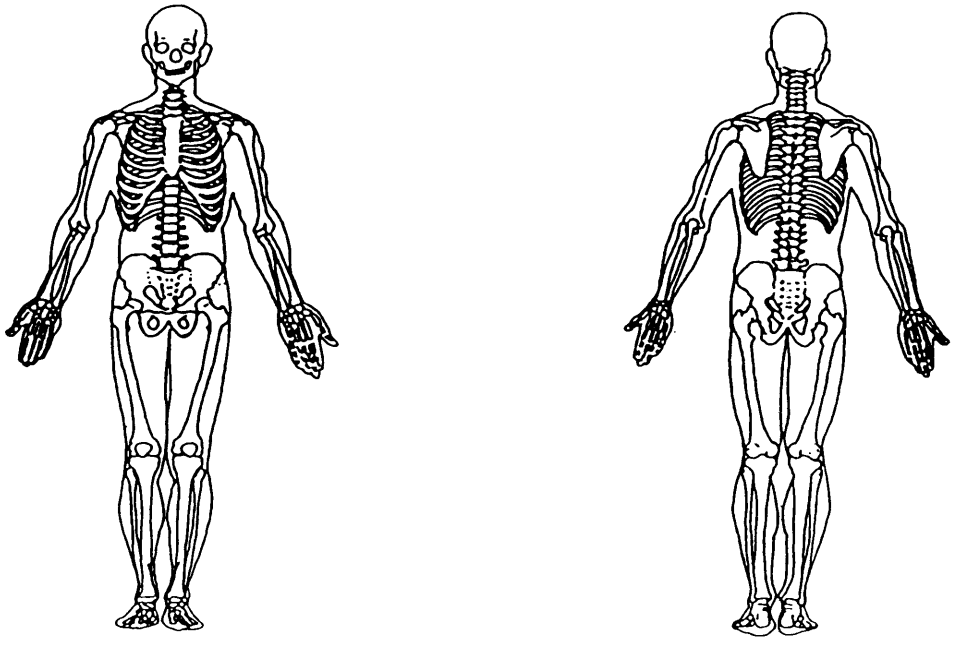
INJURY DATA FROM INTERVIEWEE(S)

Indicate the *Location, Lesion, Detail, and Source* of all injuries. Specify interviewee(s): Son

SOFT TISSUE/INTERNAL INJURIES



SKELETAL INJURIES



The space provided on the back of this page may be used to further detail injuries noted by the interviewee(s).

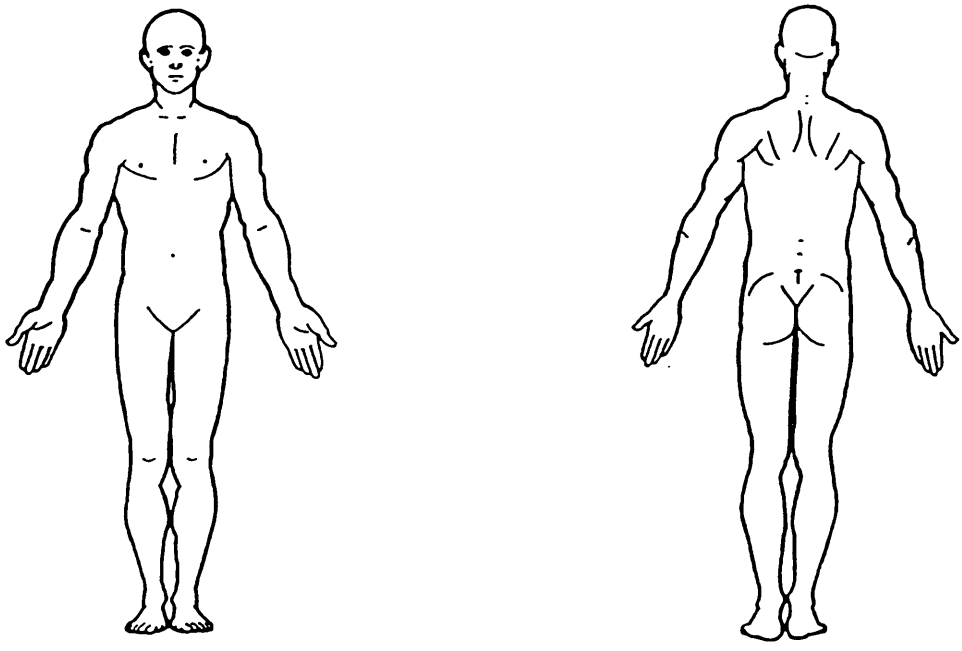
PSU Number 10 Case Number–Stratum 96 Vehicle Number ___ Occupant Number ___

INJURY DATA FROM INTERVIEWEE(S)

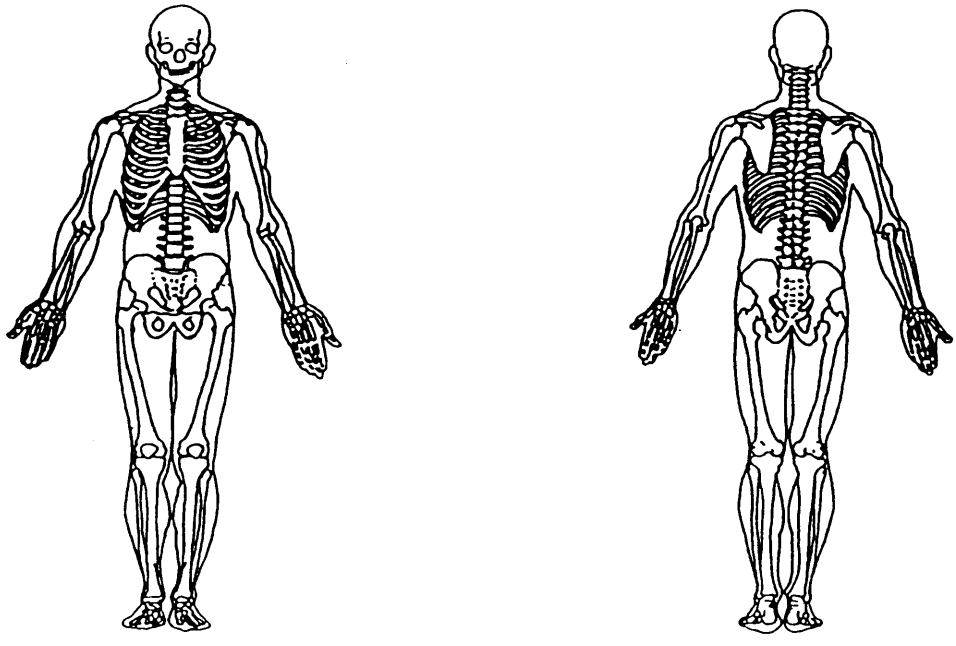
Indicate the *Location, Lesion, Detail, and Source* of all injuries. Specify interviewee(s):_____

_____

SOFT TISSUE/INTERNAL INJURIES



SKELETAL INJURIES



The space provided on the back of this page may be used to further detail injuries noted by the interviewee(s).

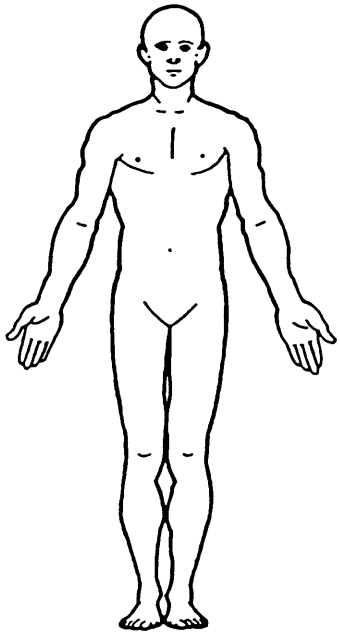
PSU Number 10 Case Number—Stratum 96 ___ ___ Vehicle Number ___ ___ Occupant Number ___ ___

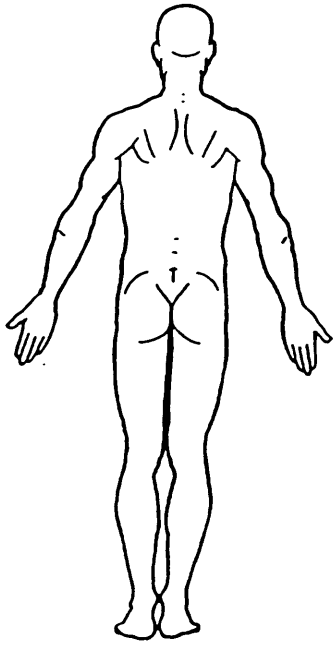
INJURY DATA FROM INTERVIEWEE(S)

Indicate the *Location, Lesion, Detail, and Source* of all injuries. Specify interviewee(s): _____

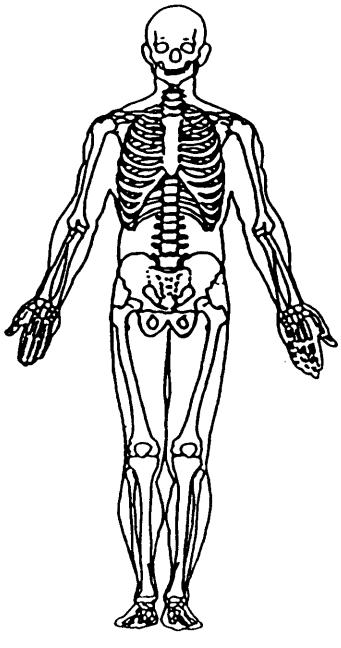
_____

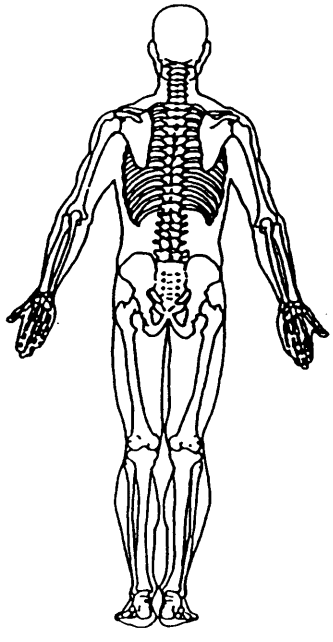
SOFT TISSUE/INTERNAL INJURIES





SKELETAL INJURIES





The space provided on the back of this page may be used to further detail injuries noted by the interviewee(s).

NASS CDS OCCUPANT ASSESSMENT FORM:
CASE VEHICLE DRIVER

U.S. Department of Transportation
National Highway Traffic Safety Administration

OCCUPANT ASSESSMENT FORM

Form Approved
O.M.B. No. 2127-0021

NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number: 10
2. Case Number - Stratum: 9628
3. Vehicle Number: 01
4. Occupant Number: 01

OCCUPANT'S CHARACTERISTICS

5. Occupant's Age: 71
Code actual age at time of accident.
(00) Less than one year old (specify by month): _____
(97) 97 years and older
(99) Unknown

6. Occupant's Sex: 1
(1) Male
(2) Female-not reported pregnant
(3) Female-pregnant-1st trimester(1st-3rd month)
(4) Female-pregnant-2nd trimester(4th-6th month)
(5) Female-pregnant-3rd trimester(7th-9th month)
(6) Female-pregnant-term unknown
(9) Unknown

7. Occupant's Height: 183
Code actual height to the nearest centimeter.
(999) Unknown Per Medicals

__ __ inches X 2.54 = __ __ __ centimeters

8. Occupant's Weight: 080
Code actual weight to the nearest kilogram.
(999) Unknown Per Medicals

__ __ __ pounds X .4536 = __ __ __ kilograms

9. Occupant's Role: 1
(1) Driver
(2) Passenger
(9) Unknown

OCCUPANT'S SEATING

10. Occupant's Seat Position: 11

Front Seat
(11) Left side
(12) Middle
(13) Right side
(14) Other (specify): _____
(15) On or in the lap of another occupant

Second Seat
(21) Left side
(22) Middle
(23) Right side
(24) Other (specify): _____
(25) On or in the lap of another occupant

Third Seat
(31) Left side
(32) Middle
(33) Right side
(34) Other (specify): _____
(35) On or in the lap of another occupant

Fourth Seat
(41) Left side
(42) Middle
(43) Right side
(44) Other (specify): _____
(45) On or in the lap of another occupant

(97) In or on unenclosed area
(98) Other seat (specify): _____
(99) Unknown

11. Occupant's Posture: 9
(0) Normal posture

Abnormal posture
(1) Kneeling or standing on seat
(2) Lying on or across seat
(3) Kneeling, standing or sitting in front of seat
(4) Sitting sideways or turned to talk with another occupant or to look out a rear window
(5) Sitting on a console
(6) Lying back in a reclined seat position
(7) Bracing with feet or hands on a surface in front of seat
(8) Other abnormal posture (specify): _____
(9) Unknown

HS Form 433A (1/96)

This report is authorized by P.L. 89-563, Title 1, Section 106, 108, and 112. While you are not required to respond, your cooperation is needed to make the results of this data collection effort comprehensive, accurate, and timely.

EJECTION/ENTRAPMENT

12. Ejection Ø
    (0) No ejection
    (1) Complete ejection
    (2) Partial ejection
    (3) Ejection, unknown degree
    (9) Unknown

13. Ejection Area Ø
    (0) No ejection
    (1) Windshield
    (2) Left front
    (3) Right front
    (4) Left rear
    (5) Right rear
    (6) Rear
    (7) Roof
    (8) Other area (e.g., back of pickup, etc.) (specify):_____
    (9) Unknown

14. Ejection Medium Ø
    (0) No ejection
    (1) Door/hatch/tailgate
    (2) Nonfixed roof structure
    (3) Fixed glazing
    (4) Nonfixed glazing (specify):
    _____
    (5) Integral structure
    (8) Other medium (specify):
    _____
    (9) Unknown

15. Medium Status (Immediately Prior To Impact) Ø
    (0) No ejection
    (1) Open
    (2) Closed
    (3) Integral structure
    (9) Unknown

16. Entrapment Ø
    (0) Not entrapped/exit not inhibited
    (1) Entrapped/pinned - mechanically restrained
    (2) Could not exit vehicle due to jammed doors, fire, etc.
    (specify):_____
    _____
    (9) Unknown

17. Occupant Mobility 4
    (0) Occupant fatal before removed from vehicle
    (1) Removed from vehicle while unconscious or not oriented to time or place
    (2) Removed from vehicle due to perceived serious injuries
    (3) Exited vehicle with some assistance
    (4) Exited vehicle under own power
    (5) Occupant fully ejected
    (8) Removed from vehicle for other reasons (specify): _____
    (9) Unknown
    Per medicals

BELT SYSTEM FUNCTION

18. Manual (Active) Belt System Availability — 3
    (0) None available
    (1) Belt removed/destroyed
    (2) Shoulder belt
    (3) Lap belt
    (4) Lap and shoulder belt
    (5) Belt available—type unknown

    Integral Belt Partially Destroyed
    (6) Shoulder belt (lap belt destroyed/removed)
    (7) Lap belt (shoulder belt destroyed/removed)
    (8) Other belt (specify): _____
    (9) Unknown

19. Manual (Active) Belt System Use — 99
    (00) None used, not available, or belt removed/destroyed
    (01) Inoperative (specify): _____
    (02) Shoulder belt
    (03) Lap belt
    (04) Lap and shoulder belt
    (05) Belt used—type unknown
    (08) Other belt used (specify): _____
    (12) Shoulder belt used with child safety seat
    (13) Lap belt used with child safety seat
    (14) Lap and shoulder belt used with child safety seat
    (15) Belt used with child safety seat—type unknown
    (18) Other belt used with child safety seat (specify): _____
    (99) Unknown if belt used

20. Proper Use of Manual (Active) Belts — 1
    (0) None used or not available
    (1) Belt used properly
    (2) Belt used properly with child safety seat

    Belt Used Improperly
    (3) Shoulder belt worn under arm
    (4) Shoulder belt worn behind back or seat
    (5) Belt worn around more than one person
    (6) Lap belt worn on abdomen
    (7) Lap belt or lap and shoulder belt used improperly with child safety seat (specify): _____
    (8) Other improper use of manual belt system (specify): _____
    (9) Unknown

21. Manual (Active) Belt Failure Modes During Accident — 9
    (0) No manual belt used or not available
    (1) No manual belt failure(s)
    (2) Torn webbing (stretched webbing not included)
    (3) Broken buckle or latchplate
    (4) Upper anchorage separated
    (5) Other anchorage separated (specify): _____
    (6) Broken retractor
    (7) Combination of above (specify): _____
    (8) Other manual belt failure (specify): _____
    (9) Unknown

22. Manual Shoulder Belt Upper Anchorage Adjustment — 8
    (0) No manual shoulder belt
    (1) No upper anchorage adjustment for manual shoulder belt

    Adjustable shoulder Belt Upper Anchorage
    (2) In full up position
    (3) In mid position
    (4) In full down position
    (5) Position unknown
    (9) Unknown if position has adjustable upper anchorage adjustment

23. Automatic (Passive) Belt System Availability/ Function — 1
    (0) Not equipped/not available
    (1) 2 point automatic belts
    (2) 3 point automatic belts
    (3) Automatic belts - type unknown

    Non-functional
    (4) Automatic belts destroyed or rendered inoperative
    (9) Unknown

24. Automatic (Passive) Belt System Use — 1
    (0) Not equipped/not available/destroyed or rendered inoperative
    (1) Automatic belt in use
    (2) Automatic belt not in use (manually disconnected, motorized track inoperative) (specify): _____
    (3) Automatic belt use unknown
    (9) Unknown

25. Automatic (Passive) Belt System Type — 2
    (0) Not equipped/not available
    (1) Non-motorized system
    (2) Motorized system
    (9) Unknown

26. Proper Use of Automatic (Passive) Belt System — 9
    (0) Not equipped/not available/not used
    (1) Automatic belt used properly
    (2) Automatic belt used properly with child safety seat

    Automatic Belt Used Improperly
    (3) Automatic shoulder belt worn under arm
    (4) Automatic shoulder belt worn behind back
    (5) Automatic belt worn around more than one person
    (6) Lap portion of automatic belt worn on abdomen
    (7) Automatic lap and shoulder belt or automatic shoulder belt used improperly with child safety seat (specify): _____
    (8) Other improper use of automatic belt system (specify): _____
    (9) Unknown

27. Automatic (Passive) Belt Failure Modes During Accident — 9
    (0) Not equipped/not available/not in use
    (1) No automatic belt failure(s)
    (2) Torn webbing (stretched webbing not included)
    (3) Broken buckle or latchplate
    (4) Upper anchorage separated
    (5) Other anchorage separated (specify): _____
    (6) Broken retractor
    (7) Combination of above (specify):
    (8) Other automatic belt failure (specify): _____
    (9) Unknown

POLICE REPORTED RESTRAINT USE

28. Police Reported Belt Use 5
    (0) None used
    (1) Police did not indicate belt use
    (2) Shoulder belt
    (3) Lap belt
    (4) Lap and shoulder belt
    (5) Belt used, type not specified
    (6) Child safety seat
    (7) Automatic belt
    (8) Other type belt, (specify):

    _____
    (9) Police indicated "unknown"

29. Police Reported Air Bag Availability/Function 2
    (0) No air bag available
    (1) Police did not indicate air bag availability/function
    (2) Deployed
    (3) Not deployed
    (4) Unknown if deployed
    (9) Police indicated "unknown"

Check the Primary Source Used In Determining Belt Use.

[ ] Vehicle inspection
[ ] Official injury data
[ ] Driver/occupant interview
[X] Other (specify):

_____
[ ] Unknown if belt used

photos for passive

AIR BAG SYSTEM FUNCTION

30. Frontal Air Bag System Availability/Function (This Occupant Position) 1
    (0) Not equipped/not available
    (1) Air bag

    Non-functional
    (2) Air bag disconnected (specify):

    _____
    (3) Air bag not reinstalled
    (9) Unknown

31. Frontal Air Bag System Deployment (This Occupant Position) 1
    (0) Not equipped/not available
    (1) Deployed during accident (as a result of impact)
    (2) Deployed inadvertently just prior to accident
    (3) Deployed, details unknown
    (4) Deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical)
    (5) Unknown if deployed
    (7) Nondeployed
    (9) Unknown

32. Other Than First Seat Frontal Air Bag Availability/Function (This Occupant Position) Φ
    (0) Not equipped/not available
    (1) Air bag

    Non-functional
    (2) Air bag disconnected (specify):

    _____
    (3) Air bag not reinstalled
    (9) Unknown

    Specify type of "other" air bag present:

    _____

33. Air Bag(s) Deployment, Other Than First Seat Frontal (This Occupant Position) Φ
    (0) Not equipped with an "other" air bag
    (1) Deployed during accident (as a result of impact)
    (2) Deployed inadvertently just prior to accident
    (3) Deployed, details unknown
    (4) Deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical)
    (5) Unknown if deployed
    (7) Nondeployed
    (9) Unknown

34. Are There Indications of Air Bag System Failure? (This Occupant Position) 1
    (0) Not equipped/not available
    (1) No
    (2) Yes (specify):

    _____
    (9) Unknown

FIRST SEAT FRONTAL AIR BAG SYSTEM EVALUATION

35. Had Vehicle Been in Previous Accident(s)? 9
- (0) Not equipped/not available
- (1) No previous accidents

Yes
- (2) Previous accident(s) without deployment(s)
- (3) One previous accident with deployment
- (4) More than one previous accident with at least one deployment
- (8) Previous accidents, unknown deployment status
- (9) Unknown

36. Type of Air Bag 9
- (0) Not equipped/not available
- (1) Original manufacturer installed system
- (2) Retrofitted air bag
- (3) Replacement air bag
- (8) Unknown type of air bag
- (9) Unknown

37. Had Any Prior Maintenance/Service Been Performed On This Air Bag System? 9
- (0) Not equipped/not available
- (1) No prior maintenance
- (2) Yes, prior maintenance (specify): _____
- (9) Unknown

38. Air Bag Deployment Accident Event Sequence Number 01
- (00) Not equipped/not available
- _____ Code the accident event sequence number that initiated the air bag deployment
- (96) Deployed, unknown event
- (97) Not deployed
- (98) Unknown if deployed
- (99) Unknown

39. CDC For Air Bag Deployment Impact 1
- (0) Not equipped/not available
- (1) Highest delta V
- (2) Second highest delta V
- (3) Other non-coded delta V (specify): _____
- (6) Deployed, unknown event
- (7) Not deployed
- (8) Unknown if deployed
- (9) Unknown

40. Longitudinal Component of Delta V For Air Bag Deployment Impact + - 999
- (_000) Not equipped/not available

Code the value of the delta V for the impact that initiated the air bag deployment
- (_996) Deployment, unknown longitudinal Delta V
- (_997) Not deployed
- (_998) Unknown if deployed
- (_999) Unknown

41. Did Air Bag Module Cover Flap(s) Open At Designated Tear Points? 3
- (0) Not equipped/not available
- (1) No
- (2) Yes
- (3) Deployed, unknown if flap(s) opened at designated tear points
- (7) Not deployed
- (8) Unknown if deployed
- (9) Unknown

42. Were Air Bag Module Cover Flap(s) Damaged? 3
- (0) Not equipped/not available
- (1) No
- (2) Yes (specify): _____
- (3) Deployed, unknown if air bag module cover flap(s) damaged
- (7) Not deployed
- (8) Unknown if deployed
- (9) Unknown

43. Was There Damage To The Air Bag? 96
- (00) Not equipped/not available
- (01) Not damaged

Yes - Air Bag Damage
- (02) Ruptured
- (03) Cut
- (04) Torn
- (05) Holed
- (06) Burned
- (07) Abraded
- (88) Other damage (specify): _____
- (95) Damaged, details unknown
- (96) Deployed, unknown if damaged
- (97) Not deployed
- (98) Unknown if deployed
- (99) Unknown

FIRST SEAT FRONTAL AIR BAG SYSTEM EVALUATION *continued*

44. Source of Air Bag Damage 96
    (00) Not equipped/not available
    (01) Not damaged
    (02) Object worn by occupant, (specify):
    (03) Object carried by occupant, (specify):
    (04) Adaptive/assistive controls, (specify):
    (05) Fire in vehicle
    (06) Thermal burns
    (07) Rescue or emergency efforts
    (88) Other damage source (specify):
    (95) Damaged, unknown source
    (96) Deployed, unknown if damaged
    (97) Not deployed
    (98) Unknown if deployed
    (99) Unknown

45. Was The Air Bag Tethered? 3
    (0) Not equipped/not available
    (1) No
    (2) Yes (specify number of tether straps):
    (3) Deployed, unknown if tethered
    (7) Not deployed
    (8) Unknown if deployed
    (9) Unknown

46. Did The Air Bag Have Vent Ports? 3
    (0) Not equipped/not available
    (1) No
    (2) Yes (specify number of vent ports):
    (3) Deployed, unknown if vent ports present
    (7) Not deployed
    (8) Unknown if deployed
    (9) Unknown

47. Was the Air Bag in this Occupant's Position Contacted by Another Occupant? 1
    (0) Not equipped/not available
    (1) No Only person in vehicle
    (2) Yes (specify):
    (3) Deployed, unknown if other occupant contact to air bag
    (7) Not deployed
    (8) Unknown if deployed
    (9) Unknown

48. Was This Occupant Wearing Eye-wear? 2
    (0) Not air bag equipped/air bag not available
    (1) No
    (2) Eyeglasses/sunglasses Per medical
    (3) Contact lenses
    (4) Deployed, unknown if eyewear worn
    (7) Not deployed
    (8) Unknown if deployed
    (9) Unknown

HEAD RESTRAINT AND SEAT EVALUATION

49. Head Restraint Type/Damage by Occupant at This Occupant Position 3
    (0) No head restraints Per photos
    (1) Integral—no damage
    (2) Integral—damaged during accident
    (3) Adjustable—no damage
    (4) Adjustable—damaged during accident
    (5) Add-on—no damage
    (6) Add-on—damaged during accident
    (8) Other (specify):
    (9) Unknown

50. Seat Type (this Occupant Position) 01
    (00) Occupant not seated or no seat
    (01) Bucket Per photos
    (02) Bucket with folding back
    (03) Bench
    (04) Bench with separate back cushions
    (05) Bench with folding back(s)
    (06) Split bench with separate back cushions
    (07) Split bench with folding back(s)
    (08) Pedestal (i.e., column supported)
    (09) Box mounted seat (i.e., van type)
    (10) Other seat type (specify):
    (99) Unknown

51. Seat Orientation (this Occupant Position) 1
    (0) Occupant not seated or no seat
    (1) Forward facing seat
    (2) Rear facing seat Per photos
    (3) Side facing seat (inward)
    (4) Side facing seat (outward)
    (8) Other (specify):
    (9) Unknown

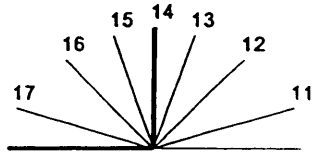
52. Seat Track Adjusted Position Prior To Impact 9
    (0) Occupant not seated or no seat
    (1) Non-adjustable seat track

    Adjustable Seat Track
    (2) Seat at forward most track position
    (3) Seat between forward most and middle track positions
    (4) Seat at middle track position
    (5) Seat between middle and rear most track positions
    (6) Seat at rear most track position
    (9) Unknown

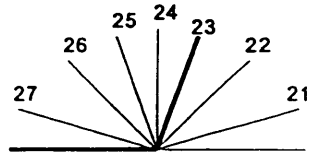
HEAD RESTRAINT AND SEAT EVALUATION *continued*

53. Seat Back Incline Prior and Post Impact 99
(00) Occupant not seated or no seat
(01) Not adjustable

Upright prior to impact
(11) Moved to completely rearward position
(12) Moved to rearward midrange position
(13) Moved to slightly rearward position
(14) Retained pre-impact position
(15) Moved to slightly forward position
(16) Moved to forward midrange position
(17) Moved to completely forward position

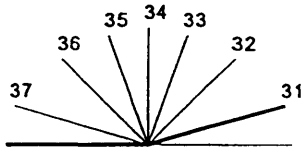


Slightly reclined prior to impact
(21) Moved to completely rearward position
(22) Moved to rearward midrange position
(23) Retained pre-impact position
(24) Moved to upright position
(25) Moved to slightly forward position
(26) Moved to forward midrange position
(27) Moved to completely forward position



Completely reclined prior to impact
(31) Retained pre-impact position
(32) Moved to rearward midrange position
(33) Moved to slightly rearward position
(34) Moved to upright position
(35) Moved to slightly forward position
(36) Moved to forward midrange position
(37) Moved to completely forward position

(99) Unknown



54. Seat Performance (this Occupant Position) 9
(0) Occupant not seated or no seat
(1) No seat performance failure(s)
(2) Seat adjusters failed
(3) Seat back folding locks or "seat back" failed (specify):_____
(4) Seat track/anchors failed
(5) Deformed by impact of occupant
(6) Deformed by passenger compartment intrusion, (specify):_____
_____
(7) Combination of above (specify):
_____
(8) Other (specify): _____
(9) Unknown

CHILD SAFETY SEAT

55. Child Safety Seat Make/Model ØØØ
(000) No child safety seat
Applicable codes are found in your NASS CDS Data Collection, Coding and Editing
(950) Built-in child safety seat
(997) Other make/model (specify):
_____
(998) Unknown make/model
(999) Unknown if child safety seat used

56. Type of Child Safety Seat Ø
(0) No child safety seat
(1) Infant seat
(2) Toddler seat
(3) Convertible seat
(4) Booster seat - with shield
(5) Booster seat - without shield
(7) Other type child safety seat (specify):
_____
(8) Unknown child safety seat type
(9) Unknown if child safety seat used

57. Child Safety Seat Orientation ØØ
(00) No child safety seat

Designed for Rear Facing for This Age/Weight
(01) Rear facing
(02) Forward facing
(08) Other orientation (specify):
_____
(09) Unknown orientation

Designed For Forward Facing for This Age/Weight
(11) Rear facing
(12) Forward facing
(18) Other orientation (specify):
_____
(19) Unknown orientation

Unknown Design or Orientation For This Age/Weight, or Unknown Age/Weight
(21) Rear facing
(22) Forward facing
(28) Other orientation (specify):
_____
(29) Unknown orientation

(99) Unknown if child safety seat used

58. Child Safety Seat Harness Usage ØØ

59. Child Safety Seat Shield Usage ØØ

60. Child Safety Seat Tether Usage ØØ

Note: Options below applicable to Variables OA58-OA60.
(00) No child safety seat

Not Designed With Harness/Shield/Tether
(01) After market harness/shield/tether added, not used
(02) After market harness/shield/tether used
(03) Child safety seat used, but no after market harness/shield/tether added
(09) Unknown if harness/shield/tether added or used

Designed With Harness/Shield/Tether
(11) Harness/shield/tether not used
(12) Harness/shield/tether used
(19) Unknown if harness/shield/tether used

Unknown If Designed With Harness/Shield/Tether
(21) Harness/shield/tether not used
(22) Harness/shield/tether used
(29) Unknown if harness/shield/tether used

(99) Unknown if child safety seat used

INJURY CONSEQUENCES

61. Injury Severity (Police Rating) 4

(0) O - No injury
(1) C - Possible injury
(2) B - Nonincapacitating injury
(3) A - Incapacitating injury
(4) K - Killed
(5) U - Injury, severity unknown
(6) Died prior to accident
(9) Unknown

62. Treatment - Mortality 1
(0) No treatment
(1) Fatal
(2) Fatal - ruled disease (specify):

_____

Nonfatal
(3) Hospitalization
(4) Transported and released
(5) Treatment at scene - nontransported
(6) Treatment later
(7) Treatment - other (specify):

_____

(8) Transported to a medical facility-unknown if treated
(9) Unknown

63. Type Of Medical Facility (for Initial Treatment) 2
(0) Not treated at a medical facility
(1) Trauma center
(2) Hospital
(3) Medical clinic
(4) Physician's office
(5) Treatment later at medical facility
(8) Other (specify):

_____

(9) Unknown

64. Hospital Stay 01
(00) Not Hospitalized
____Code the number of days (up through 60) that the occupant stayed in hospital.
(61) 61 days or more
(99) Unknown

65. Working Days Lost 97
____Code the number of days (up through 60) that the occupant lost from work due to the accident
(00) No working days lost
(61) 61 days or more
(62) Fatally injured
(97) Not working prior to accident
(99) Unknown

STOP WORK HERE

VARIABLES 66-74

TO BE CODED BY THE ZONE CENTER

TO BE CODED BY THE ZONE CENTER

INJURY CONSEQUENCES

66. Time to Death — Φ 8
____Code number of hours from time of accident to time of death up through 24 hours. If time of death is greater than 24 hours, code number of days. (Note: 1 day = 31, 2 days = 32, ... n days = 30 +n up through 30 days = 60)
(00) Not fatal
(96) Fatal - ruled disease
(99) Unknown

67. 1st Medically Reported Cause of Death — 0 1

68. 2nd Medically Reported Cause of Death — 0 0

69. 3rd Medically Reported Cause of Death — 0 0
____Code the Occupant Injury from line number(s) for the medically reported injury(s) which reportedly contributed to this occupant's death
(00) Not fatal or no additional causes
(96) Mode of death given but specific injuries are not linked to cause of death. (specify): _____
(97) Other result (includes fatal ruled disease) (specify): _____
(99) Unknown

70. Number of Recorded Injuries for This Occupant — 0 5
____Code the actual number of injuries recorded for this occupant.
(00) No recorded injuries
(97) Injured, details unknown
(99) Unknown if injured

TRAUMA DATA

71. Glasgow Coma Scale (GCS) Score (at Medical Facility) — 1 5
(00) Not injured
(01) Injured - not treated at medical facility
(02) No GCS Score at medical facility
(03-15) Code the actual value of the initial GCS Score recorded at medical facility.
(97) Injured, details unknown
(99) Unknown if injured

72. Was the Occupant Given Blood? — 2
(1) No - blood not given
(2) Yes - blood given (specify units): 26 packed rcd blood cells
(9) Unknown if blood given

73. Arterial Blood Gases (ABG) - HCO_3 — 1 3
(00) Not injured 12.8
(01) Injured, ABGs not measured or reported
(02-50) Code the actual value of the HCO_3
(96) ABGs reported , HCO_3 unknown
(97) Injured, details unknown
(99) Unknown if injured
Base Excess -7.3; largest base excess was -13.2

BELT USE DETERMINATION

74. Primary Source of Belt Use Determination — 8
(0) Not equipped/not available/destroyed or rendered inoperative
(1) Vehicle inspection
(2) Official injury data
(3) Driver/occupant interview
(8) Other (specify): photos
(9) Unknown if belt used

NASS CDS OCCUPANT INJURY FORM:
CASE VEHICLE DRIVER

U.S. Department of Transportation
National Highway Traffic Safety Administration

OCCUPANT INJURY FORM

Form Approved
O.M.B. No. 2127-0021
NATIONAL ACCIDENT SAMPLING SYSTEM
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number	10	3. Vehicle Number	01
2. Case Number - Stratum	9628	4. Occupant Number	01

INJURY DATA

Record below the actual injuries sustained by this occupant that were identified from the official and unofficial data sources. Remember not to double count an injury just because it was identified from two different sources. If greater than ten injuries have been documented, encode the balance on the Occupant Injury Supplement.

	Source of Injury Data	A.I.S. - 90 Body Region	Type of Anatomic Structure	Specific Anatomic Structure	Level of Injury	A.I.S. Severity	Aspect	Injury Source	Injury Source Confidence Level	Direct/ Indirect Injury	Occupant Area Intrusion Number
Lacerated aorta (1st) arch	5. 2	6. 4	7. 2	8. 02	9. 16	10. 5	11. 4	12. 170	13. 2	14. 1	15. 00
Laceration (E) forehead	16. 2 (2nd)	17. 2	18. 9	19. 06	20. 02	21. 1	22. 7	23. 057	24. 2	25. 1	26. 99
Contusion (L) upper chest	27. 2 (3rd)	28. 4	29. 9	30. 04	31. 02	32. 1	33. 2	34. 170	35. 2	36. 1	37. 00
Abrasion (L) shoulder	38. 3 (4th)	39. 7	40. 9	41. 02	42. 02	43. 1	44. 2	45. 152	46. 1	47. 1	48. 00
Abrasion (R) Knee	49. 3 (5th)	50. 8	51. 9	52. 02	53. 02	54. 1	55. 1	56. 010	57. 2	58. 1	59. 99
	60. __ (6th)	61. __	62. __	63. __	64. __	65. __	66. __	67. __	68. __	69. __	70. __
	71. __ (7th)	72. __	73. __	74. __	75. __	76. __	77. __	78. __	79. __	80. __	81. __
	82. __ (8th)	83. __	84. __	85. __	86. __	87. __	88. __	89. __	90. __	91. __	92. __
	93. __ (9th)	94. __	95. __	96. __	97. __	98. __	99. __	100. __	101. __	102. __	103. __
	104. __ (10th)	105. __	106. __	107. __	108. __	109. __	110. __	111. __	112. __	113. __	114. __

OCCUPANT INJURY DATA

	Source of Injury Data	A.I.S. - 90 Body Region	Type of Anatomic Structure	Specific Anatomic Structure	Level of Injury	A.I.S. Severity	Aspect	Injury Source	Injury Source Confidence Level	Direct/ Indirect Injury	Occupant Area Intrusion Number
11th	—	—	—	— —	— —	—	—	— — —	—	—	— —
12th	—	—	—	— —	— —	—	—	— — —	—	—	— —
13th	—	—	—	— —	— —	—	—	— — —	—	—	— —
14th	—	—	—	— —	— —	—	—	— — —	—	—	— —
15th	—	—	—	— —	— —	—	—	— — —	—	—	— —
16th	—	—	—	— —	— —	—	—	— — —	—	—	— —
17th	—	—	—	— —	— —	—	—	— — —	—	—	— —
18th	—	—	—	— —	— —	—	—	— — —	—	—	— —
19th	—	—	—	— —	— —	—	—	— — —	—	—	— —
20th	—	—	—	— —	— —	—	—	— — —	—	—	— —
21st	—	—	—	— —	— —	—	—	— — —	—	—	— —
22nd	—	—	—	— —	— —	—	—	— — —	—	—	— —
23rd	—	—	—	— —	— —	—	—	— — —	—	—	— —
24th	—	—	—	— —	— —	—	—	— — —	—	—	— —
25th	—	—	—	— —	— —	—	—	— — —	—	—	— —

BODY DIAGRAMS AND MEDICAL RECORDS
FROM
INITIAL TREATMENT FACILITY

OCCUPANT INJURY CLASSIFICATION

Body Region

(1) Head
(2) Face
(3) Neck
(4) Thorax
(5) Abdomen
(6) Spine
(7) Upper Extremity
(8) Lower Extremity
(9) Unspecified

Type of Anatomic Structure

(1) Whole Area
(2) Vessels
(3) Nerves
(4) Organs (includes Muscles/ligaments)
(5) Skeletal (includes joints)
(6) Head - LOC
(9) Skin

Specific Anatomic Structure

Vessels, Nerves, Organs, Bones, Joints are assigned consecutive two digit numbers beginning with 02.

The exceptions to this rule apply to:

Whole Area
(02) Skin - Abrasion
(04) Skin - Contusion
(06) Skin - Laceration
(08) Skin - Avulsion
(10) Amputation
(20) Burn
(30) Crush
(40) Degloving
(50) Injury - NFS
(90) Trauma, other than mechanical

Head - LOC
(02) Length of LOC

(04) Level
(06) of
(08) Consciousness

(10) Concussion

Spine
(02) Cervical
(04) Thoracic
(06) Lumbar

Level of Injury

Specific injuries are assigned consecutive two-digit numbers beginning with 02.

To the extent possible, within the organizational framework of the AIS, 00 is assigned to an injury NFS as to severity or where only one injury is given in the dictionary for that anatomic structure. 99 is assigned to any injury NFS as to lesion or severity.

Abbreviated Injury Scale

(1) Minor Injury
(2) Moderate Injury
(3) Serious Injury
(4) Severe Injury
(5) Critical Injury
(6) Maximum (untreatable)
(7) Injured, unknown severity

Aspect

(1) Right
(2) Left
(3) Bilateral
(4) Central
(5) Anterior
(6) Posterior
(7) Superior
(8) Inferior
(9) Unknown
(0) Whole region

SOURCE OF INJURY DATA

OFFICIAL RECORDS
(1) Autopsy records with or without hospital/medical records
(2) Hospital/medical records other than emergency room (e.g., discharge summary)
(3) Emergency room records only (including associated X-rays or other lab reports)
(4) Private physician, walk-in or emergency clinic

UNOFFICIAL RECORDS
(5) Lay coroner report
(6) E.M.S. personnel
(7) Interviewee
(8) Other source (specify):

(9) Police

INJURY SOURCE CONFIDENCE LEVEL

(1) Certain
(2) Probable
(3) Possible
(9) Unknown

DIRECT/INDIRECT INJURY

(1) Direct contact injury
(2) Indirect contact injury
(3) Noncontact injury
(7) Injured, unknown source

OFFICIAL INJURY DATA — SOFT TISSUE INJURIES

Air bag deployed (ED, NN)

Restrained?

__ No

✓ Yes (NN)

Blood Alcohol Level (mg/dl)

BAL = .02

19 mg/dl (PP)

Glasgow Coma Scale Score

GCSS = 15

(NN, CN2)

Units of Blood Given

Units = 1

Packed RBC (ED, NN)

Arterial Blood Gases

pH = ___

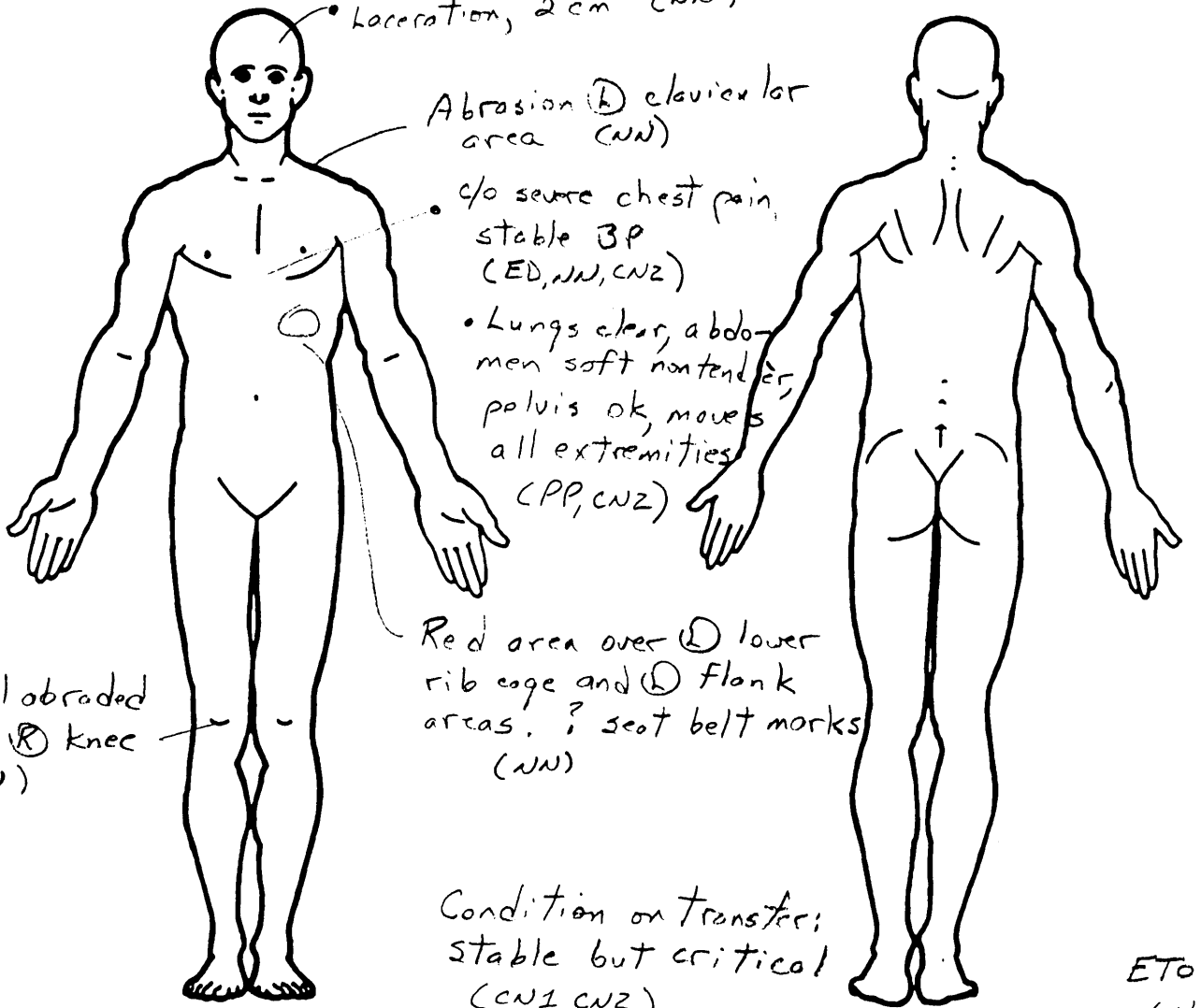
PO_2 = ___

PCO_2 ___

HCO_3 ___

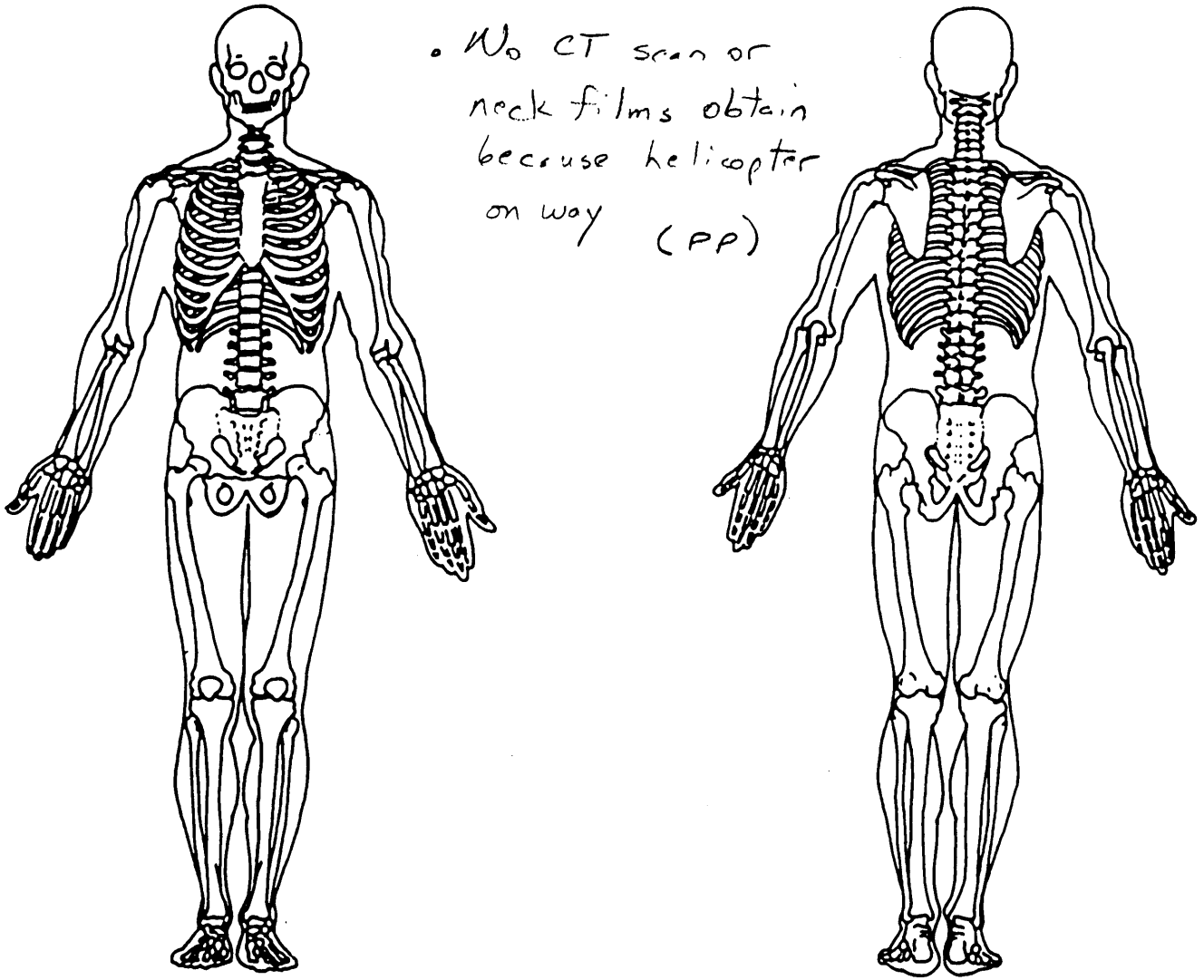
- Restrained driver @ approximately 45 m.p.h. (NN)
- Pt was wearing a passive restraint (NN)
- Seat broken (ED)

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)



OFFICIAL INJURY DATA – SKELETAL INJURIES

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)



- No CT scan or neck films obtain because helicopter on way (PP)

INJURY SOURCES

FRONT
(001) Windshield
(002) Mirror
(003) Sunvisor
(004) Steering wheel rim
(005) Steering wheel hub/spoke
(006) Steering wheel (combination of codes 004 and 005)
(007) Steering column, transmission selector lever, other attachment
(008) Cellular telephone or CB radio
(009) Add on equipment (e.g., tape deck, air conditioner)
(010) Left instrument panel and below
(011) Center instrument panel and below
(012) Right instrument panel and below
(013) Glove compartment door
(014) Knee bolster
(015) Windshield including one or more of the following: front header, A (A1/A2)-pillar, instrument panel, mirror, or steering assembly (driver side only)
(016) Windshield including one or more of the following: front header, A (A1/A2)-pillar, instrument panel, or mirror (passenger side only)
(017) Windshield reinforced by exterior object (specify) _____
(019) Other front object (specify): _____

LEFT SIDE
(051) Left side interior surface, excluding hardware or armrests
(052) Left side hardware or armrest
(053) Left A (A1/A2)-pillar
(054) Left B-pillar
(055) Other left pillar (specify): _____
(056) Left side window glass
(057) Left side window frame
(058) Left side window sill
(059) Left side window glass including one or more of the following: frame, window sill, A (A1/A2)-pillar, B-pillar, or roof side rail.
(060) Other left side object (specify): _____

RIGHT SIDE
(101) Right side interior surface, excluding hardware or armrests
(102) Right side hardware or armrest
(103) Right A (A1/A2)-pillar
(104) Right B-pillar
(105) Other right pillar (specify): _____
(106) Right side window glass
(107) Right side window frame
(108) Right side window sill
(109) Right side window glass including one or more of the following: frame, window sill, A (A1/A2)-pillar, B-pillar, or roof side rail.
(110) Other right side object (specify): _____

INTERIOR
(151) Seat, back support
(152) Belt restraint webbing/buckle
(153) Belt restraint B-pillar or door frame attachment point
(154) Other restraint system component (specify): _____
(155) Head restraint system
(160) Other occupants (specify): _____
(161) Interior loose objects
(162) Child safety seat (specify): _____
(163) Other interior object (specify): _____

AIR BAG
(170) Air bag-driver side
(171) Air bag-driver side and eyewear
(172) Air bag-driver side and jewelry
(173) Air bag-driver side and object held
(174) Air bag-driver side and object in mouth
(175) Air bag compartment cover-driver side
(176) Air bag compartment cover-driver side and eyewear
(177) Air bag compartment cover-driver side and jewelry
(178) Air bag compartment cover-driver side and object held
(179) Air bag compartment cover-driver side and object in mouth
(180) Air bag-passenger side
(181) Air bag-passenger side and eyewear
(182) Air bag-passenger side and jewelry
(183) Air bag-passenger side and object held
(184) Air bag-passenger side and object in mouth
(185) Air bag compartment cover-passenger side
(186) Air bag compartment cover-passenger side and eyewear
(187) Air bag compartment cover-passenger side and jewelry
(188) Air bag compartment cover-passenger side and object held
(189) Air bag compartment cover-passenger side and object in mouth
(190) Other air bag (specify) _____
(195) Other air bag compartment cover (specify) _____

ROOF
(201) Front header
(202) Rear header
(203) Roof left side rail
(204) Roof right side rail
(205) Roof or convertible top

FLOOR
(251) Floor (including toe pan)
(252) Floor or console mounted transmission lever, including console
(253) Parking brake handle
(254) Foot controls including parking brake

REAR
(301) Backlight (rear window)
(302) Backlight storage rack, door, etc.
(303) Other rear object (specify): _____

ADAPTIVE (ASSISTIVE) DRIVING EQUIPMENT
(401) Hand controls for braking/acceleration
(402) Steering control devices (attached to OEM steering wheel)
(403) Steering knob attached to steering wheel
(405) Replacement steering wheel (i.e., reduced diameter)
(406) Joy stick steering controls
(407) Wheelchair tie-downs
(408) Modification to seat belts, (specify): _____
(409) Additional or relocated switches, (specify): _____
(410) Raised roof
(411) Wall mounted head rest (used behind wheel chair)
(412) Other adaptive device (specify): _____

EXTERIOR of OCCUPANT'S VEHICLE
(451) Hood
(452) Outside hardware (e.g., outside mirror, antenna)
(453) Other exterior surface or tires (specify): _____
(454) Unknown exterior objects

EXTERIOR OF OTHER MOTOR VEHICLE
(501) Front bumper
(502) Hood edge
(503) Other front of vehicle (specify): _____
(504) Hood
(505) Hood ornament
(506) Windshield, roof rail, A-pillar
(507) Side surface
(508) Side mirrors
(509) Other side protrusions (specify): _____
(510) Rear surface
(511) Undercarriage
(512) Tires and wheels
(513) Other exterior of other motor vehicle (specify): _____
(514) Unknown exterior of other motor vehicle

OTHER VEHICLE OR OBJECT IN THE ENVIRONMENT
(551) Ground
(598) Other vehicle or object (specify): _____
(599) Unknown vehicle or object

NONCONTACT INJURY
(601) Fire in vehicle
(602) Flying glass
(603) Other noncontact injury source (specify): _____
(604) Air bag exhaust gases
(697) Injured, unknown source

OFFICIAL INJURY DATA —INTERNAL INJURIES

BEST AVAILABLE

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)

- Aortic arch tear between (L) common carotid (proximal to) and (R) innominant (distal to) (PP, CN2)
- Up walking at site, then fell (NN)
- At original exam heart was stable, no rubs (PP)
- Pt alert and answering questions (ED, CN2)
- Bradycardia (ED, CN2)
- Awake on arrival (NN, CN2)
- Neurologically intact (CN2)
- Chest X-ray: large mediastinal hematoma (ED, CN2)
- Angiogram: aortic tear at top of arch, no active bleeding (ED, CN2)
- I told 3 family members there that his condition was extremely critical and usually this is fatal at the scene... I told them I was not sure if anyone could help his situation (CN2)
- History: (old angiogram) aortic arch abnormality with (R) descending aorta (ED, CN2)
- Slight stroke last spring + right side weakness (PP) (5 months prior — NN)

Dx: Tear aortic arch at top, Deceleration injury (ER)

CN1 = Trauma Surgeon
CN2 = Cardiologist

CAUSE OF DEATH

ICD-9-CM

OTHER DRUGS (GV16)

Specimen Test Type	Drug(s)	Drug Type
___ Blood and urine tests ___ Blood test only ___ Urine test only ___ Other test ___ Unspecified		

MEDICAL RECORD ABBREVIATIONS

Symbol	Record Type Description
A	Autopsy--medical information based upon an invasive examination of a body
ME	Medical examiner's record--where the information reported on the patient is based on a non-invasive examination of the body
AR	Admission record/summary--any medical information on this record should be considered as post-ER since it summarizes the patient's admission; these records are common in short hospitalizations and usually only contain: admission DX(s), final DX(s), and a listing of surgical treatments; ICD-9-CM codes are frequently available.
FS	Admission/discharge face sheet--face sheets are essentially the same as admission record/summaries and contain the same types of information as discussed above
DS	Discharge summary--shorten history of a patient's hospitalization highlighting the patient's major injuries; this record is often written from the perspective of its author which in many cases is a consultant
OS	Operative record--summary of a performed surgical operation often providing detailed information about a specific trauma; patients who survive the surgery are normally admitted; thus, this record is normally considered post-ER; however, if this record results from an outpatient surgery, then treat it as emergency-room related
PX	Radiographic records--taken after the patient has been admitted, or while in surgery or intensive care
PN	Patient progress notes--supplemental record containing additional nurses notes taken after the patient's admission
HP	History and physical exam--medical history and the results of the physical exam obtained by the emergency room physician assigned to the patient upon arrival at the emergency room
CN	Consultation record--consultations are in essence additional history and physicial exams performed by doctors whose expertise was requested by the emergency room physician; the consultation may occur during the emergency room visit or after admission
ER	Emergency room report--where the author of this information is undefined
EN	Emergency room nurse--"nurse/complaint of" section on the emergency room report
ED	Emergency room doctor--"objective/physical exam" section plus "diagnosis and treatment" sections (i.e., doctor portion of emergency room report)
NN	Nurse notes--supplemental record containing additional notes taken by the emergency room nurse(s)
EX	Radiographic records--taken during the patients stay in the emergency room
CV	Coroner's verdict--statement of cause of death for legal specific regarding injuries; care must be exercised to ascertain the credentials of the verdict's author.
CR	Coroner's report--medical information based upon a noninvasive examination performed by a person who is not a doctor but who has the title of a coroner
ET	Emergency medical technician--report by a person who qualifies as an emergency medical services technician (EMS or EMT)
O	Other source--medical information based on an other source (e.g., newspaper, DVM--Doctor of Veterinary Medicine)

PP = Physician Progress notes

BEST AVAILABLE

septic patient at WVU

MEDICAL CENTER — REGIONAL HOSPITAL

MEDICAL RECORDS NO. | EMERGENCY/TRAUMA RECORD | ACCOUNT NO.

PATIENT NAME: LAST/FIRST/M.I.	AGE	BDATE	DATE	TIME	BROUGHT BY
	71			1611	AMBULANCE-

STREET ADDRESS/CITY/STATE/ZIP

HOME PHONE	EMPLOYER	OCCUPATION	WORK RELATED
		RETIRED	N

PRIMARY INSURANCE PLAN — FAMILY DOCTOR NAME — EMSTAR DOCTOR

REASON FOR VISIT : MVA — Notified RJP

TIME	PHYSICIAN ORDERS	DONE
	CHEST ✓ [ ] PORT	
	C-SPINE [ ] PORT	
	PELVIS [✓] PORT	
	ABDOMEN ✓	
	CT	
	U/S	
	CBC	
	CHEM 19	
	CHEM 7	
	AMYLASE	
	BHCG	
	PT/PTT	
	BLOOD CULTURES X	
	ADMISSION	
	CCU	
	TPA	
	TRAUMA I ✓	
	TRAUMA II	
	U/A	
	ABG	
	EKG [ ] PRIOR	

TIME	MEDS AND TREATMENT	DONE
	CARDIAC MONITOR	
	PULSE OX	
	O2	
	S/A 2 mgm MS	
	HEPLOCK	
	IV 2 mgm repeated	

Brain dead? Patient alert & answering questions

HISTORY & PHYSICAL

TIME EXAMINED: — DICTATED [N] STAT [ ] ROUTINE [ ]

CC: Head on collision on
HPI: — brought to trauma room
c̄ severe chest pain & stable Bl.P.
around 100-105/60. Sinus
ROS:
PMH: bradycardia in 40-50 range
SURG: which he has had before
FAMHX: EKG same as before. Portable
SOCHX: chest film showed large mediastinal
MEDS:
ALLERGY:
PE: hematoma - old arteriograms
showed aortic arch abnormality c̄
right descending aorta. Arteriogram
showed aortic tear at top of arch
with no active bleeding at this
LAB: time. Bl.P. shot up to 150 after
XRAY: dye injected - nitroglycerine drip started
ED COURSE: at 30 mcs/min - after 1/2 hour Bl.P. dropped
to 70 - Nitro stopped & Bl.P. slowly

(air-borne) (left) (Seat belt)

REFERRED TO: — TIME: / — RESPONSE:
DISCUSSION: Came up to 78. One unit of packed RBC

CONDITION ON DISCHARGE	DISPOSITION
[ ] GOOD	[ ] HOME
[ ] SATISFAC	[ ] ADMIT
[ ] FAIR	[ ] CORONER
[ ] POOR	[✓] TRANSFER to
[✓] CRITICAL	[ ] OBSERVA
[ ] EXPIRED	[ ] ELOPE
	[ ] AMA

DISCHARGE DIAGNOSIS: Tear aortic arch at top
deceleration injury
MVA

HEALTH PLAN PA/HMO PATIENT

ADMIT	MED. REC. NO.	ACCOUNT NO.	PHYSICIAN'S SIGNATURE
DISCHARGE			

Continued trauma note

BEST AVAILABLE

FORM 39-29 REV. 9/90

VALLEY MEDICAL CENTER

PROGRESS NOTES

packed RBC hanging at slow drip (non Xmatched O neg)

To keep Bl. P. down Lactated Ringers used sparingly

Continuation of trauma note

Also had MS 2 mg + versed 2 mg

DATE	TIME	PROGRESS NOTES
		150 mics fentanyl given by anesthesia
		converted arteriogram catheter
		to femoral art line - had 14 angiocath in Rt
		antecubital + a 16 in lower Rt forearm + #18 in
		left arm. ... was here, evaluated the
		patient and the arteriogram & felt patient
		should be at medical center with heart-lung
		bypass capability + also ability to give deep
		hypothermia. ... made arrangements
		for transfer to ... + cleared it c the Health Plan
		to ... by Stat medivac helicopter
		At original exam heart was stable - no rubs
		Lungs - clear Abdomen soft & non tender
		Pelvis OK - moved all extremities
		Patient went straight to X ray for arteriogram
		on advice of radiologists, ET tube placed
		by anesthesia c aid of norcuron IV, N/G tube
		drained beer from his stomach - BAL only 19

Aortic tear between Lt common carotid & Rt innominate

History of slight stroke last spring & right sided
weakness - takes Norvasc 10 mgm daily at 7⁰⁰ AM
No allergies according to patient
C collar still in place at transfer - no time
for CT since helicopter on the way
No neck films obtained

BEST AVAILABLE

FORM #OV-189 (7/96)

MEDICAL CENTER
Trauma Patient Care Plan

Date 76. Arrival Time 16:10

Name ____ ER # ____

TRAUMA TEAM RESPONSE ☑ I ☐ II ☐ MOTT

ED Doctor ____

Trauma RN ____

ED Other ____

LEVEL I ACTIVATION	Arrival Time
Trauma Surgeon	16:13
Anesthesia	16:16
CRNA	
Other	

LEVEL II ACTIVATION	Responded	Arrival Time
Trauma Surgeon		16:20
Other		

CONSULT / SERVICE / NAME	Responded	Arrival Time
Neuro		
Ortho		
Plastics		
Other		

PRE HOSPITAL INFORMATION

☑ Ambulance ____ ☐ Helicopter

☐ Auto ☐ Transfer ____

☐ Ambulatory ☐ Other ____

MECHANISM OF INJURY

☑ MVA vs Another car

☐ Motorcycle vs ____

☐ Fall ____

☐ GSW ____

☐ Stab ____

☐ Assault ____

☐ Other ____

☐ Unknown ____

☐ LOC min ____ ☐ Unsure ☐ Unknown

Describe details of the injury:
MVA Restrained Driver
approx 45 mph
hit by another car.
Up walking at site then
fell.
Pt was wearing a
restraint & air bag
in Pt car did deploy

Primary Assessment Time 16:15

AIRWAY

☑ Patent ☐ Obstructed

☐ Natural ☐ Artificial

☑ O_2 15 L ☐ Oral

☐ NRB ☐ NC ☐ Nasal

☐ BVM ☑ ET # 8.5 @ 18:45

☐ ET / NT ☐ NT # ____

☐ Trachea midline ☐ Trachea deviated ☐ R ☐ L

BREATHING

☑ Spontaneous
☐ Regular
☐ Unlabored
☑ Symmetrical
☐ Absent
☐ Shallow
☐ Labored
☐ Asymmetrical

Breath Sounds	R	L
Present	✓☐	☑
Clear	☑	☑
Decreased	☐	☐
Absent	☐	☐
Crackles	☐	☐
Rhonchi	☐	☐
Wheezes	☐	☐

CIRCULATION

External Bleeding ☐ No ☑ Yes (L) forehead

Color ☑ Normal ☐ Flushed ☐ Pale ☐ Ashen ☐ Mottled ☐ Cyanotic

Temp ☐ Warm ☑ Cool ☐ Hot ☐ Cold

Moisture ☐ Normal ☐ Dry ☐ Diaphoretic

Refill ☐ < 2 seconds ☐ > 2 seconds ☐ None

Heart Sounds ☐ Present ☐ Regular ☐ Absent ☐ Irregular ☐ Distant ☐ Muffled

Rhythm ____

Best Pulse ☑ Strong ☐ Bounding ☐ Weak ☐ Absent

Pulse Present	R	L
Carotid (vital)	☐	☐
Radial	☑	☑
Pedal	☑	☑

DEFICIT: NEURO

GCS	Score
Eye Opening	
Spontaneous	(4)
To Voice	3
To Pain	2
None	1
Verbal	
Oriented	(5)
Confused	4
Inappropriate words	3
Incomprehensive	2
None	1
Motor	
Obeys command	(6)
Purposeful move	5
Withdrawn	4
Flexion	3
Extension	2
None	1
Total GCS	15

RTS	Score
Respiratory Rate	
10 - 24	(4)
25 - 35	3
≥ 36	2
1 - 9	1
0	0
Systolic BP	
> 89 mm Hg	(4)
70 - 89	3
50 - 69	2
1 - 49	1
0	0
GCS Score	
13 - 15	(4)
9 - 12	3
6 - 8	2
4 - 5	1
3	0
Total RTS	12

PUPIL REACTION	OS(L)	Size	OD (R)	Size
Brisk	☑	5 mm	☑	5 mm
Constricted	☐	___ mm	☐	___ mm
Sluggish	☐	___ mm	☐	___ mm
Dilated	☐	___ mm	☐	___ mm
Nonreactive	☐	___ mm	☐	___ mm

1 2 3 4 5 6 7 8 9

EXTREMITIES	Movement Y	Movement N	Sensation Y	Sensation N		Movement Y	Movement N	Sensation Y	Sensation N
R Arm	☑	☐	☐	☐	R Leg	☑	☐	☐	☐
L Arm	☑	☐	☐	☐	L Leg	☑	☐	☐	☐

NN

Past History ☐ None — Medications ☐ None — Allergies ☑ NKA

HTN — Norvasc — NKA

CVA

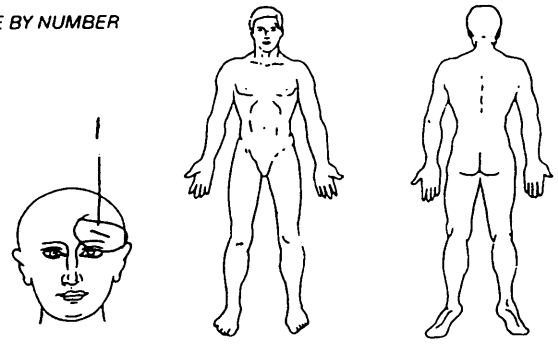
(R) Side weakness

ETOH odor

Last Tetanus ☑ Unknown ☐ < 5 yrs ☐ > 5 yrs — Last meal _____ — LMP N/A

SECONDARY ASSESSMENT

IDENTIFY INJURY SITE BY NUMBER
1. Abrasion
2. Amputation
3. Avulsion
4. Burn
5. Contusion
6. Deformity
7. Ecchymosis
8. Fracture, Closed
9. Fracture, Open
10. GSW
11. Hematoma
12. Laceration
13. Stab
14. Other



Patient Complaints of Pain / Discomfort 0 1 2 3 4 5 / ☐ Unable to respond

Mid chest discomfort
& chest pain

Head / Face ☐No Visible Injury

(L) forehead laceration approx 2cm

C-spine / Neck ☐No Visible Injury

Neck back intact

Chest ☐No Visible Injury

Abrasion (L) Clavicular area

Abdomen ☐No Visible Injury

Soft, non-distended
non tender.

Perineum / Rectal ☐No Visible Injury

Extremities ☑No Visible Injury

Rt & left pulses are palpable + (=)
bilaterally

PATIENT INFORMATION

TIME DONE	RESUSCITATION ORDERS
	X-RAYS
	C-Spine
16:15	Chest
	Pelvis
	Abdomen
	Thoracic Spine
	Lumbar Spine
	Extremity
	Extremity
	CT Head
	CT Spine
	CT Chest
	CT Abdomen
16:45	To CT From CT 16:47
16:55	To X-ray Aorta scan From X-ray 18:06
	LAB
16:45	Level I Profile
	Level II Profile
	ABGs on ☐ Rm Air ☐ O2 L
	DPL Fluid
	BHCG
16:45	Type & Cross / Hold # units
16:45	PT/PTT
16:45	CK-MB
	PROCEDURES
PTA	O2 15 L/min via NRB / NC / BVM
	ET # By
	NT # By
	Chest Tube R# L#
	R returns
	L returns
	RIV Site Size
PTA	RIV Site #14 Size
PTA	LIV Site #16 Size
	LIV Site Size
	Central Site
	Cutdown Site
16:17	EKG
18:50	NG # R (L) Nare #18 Returns Yellow
	Foley # ETOH odor
	Urine: (Yellow) Amber Bloody
	DPL: Clear Pink Bloody
	Rectal + / - OB
	CPR
	PASG Inflated Legs / Abd
	Splint
	Sutures
	Restraints UE LE Type
	C-Spine Cleared By

BEST AVAILABLE

LEGEND B = Brisk S = Sluggish N = Nonreactive

TIME	B/P	PULSE	RESP SPONT / ASSIST	TEMP	RHYTHM	SpO2	EYES	VERBAL	MOTOR	GCS	L SIZE / REACT	R SIZE / REACT	TIME	MEDICATIONS - DOSE / ROUTE / SITE	INITIALS
16:15	117/72	54	✓	-			4	5	6		5 B	5 B		MSO4 2mg IP	
	110/	50	✓												
	100/124	48	✓												
16:45	98/41	48	✓	(T) 95.7	SB		4	5	6				16:45	1 unit of packed cells hung slow rate	
17:05	110/57					95%									
17:20	135/67														
17:32	135/87	58				100%							17:45	NTG start 6.6mcg (PC's off)	
17:45	140/70	52											17:45	fentanyl 150mcg by P. Toucoul	
18:00	153/70	98			SB		4	5	6				18:06	NTG 13 mcg /200	
18:10	137/68												18:45	NTG off	
18:30	98/72													(PC's fluid restarted	
18:45	70/	43												Versed 2mg IV by	
18:46	76/50													P. Toucoul CRNA	
18:47	89/														
18:48	90/														

16:10 Received into Trauma Rm from CUFD. —
Immobilized on backboard & CID. Neck lock intact.
Awake. Answers questions & follows commands. —
Moves all extremities. PEARL. Hands & feet are cold to touch. Radial pulses & pedal are palpable bilaterally.
Laceration over (L) forehead. Small dressing applied.
Red areas over lower (L) rib cage, area and (R) flank
areas ? seat belt marks. Large bore IV's (L) & (R) A/C.
See flowsheet. LR infusing W.O. Small scraped area
(R) knee. No bleeding.
Resp rate 22 - non-labored. On 100% NRB —
16:15 CXR done at bedside. bedside
Arterial inserted 14 angio (R) hand —
16:17 EKG done at bedside. bedside
16:20 Warm blankets applied.
16:45 To CT & back
16:55 Moved to angio room.
Urine in x-ray 250cc
17:45 NTG started for BP 140/70. See flowsheet

INITIALS	SIGNATURES
	RN

PATIENT INFORMATION

NN (Continued)

BEST AVAILABLE

TIME	
1750	NTG ↑ 3cc/20mcg BP 130/70
18:00	Moved back to ER department.
18:10	NTG ↑ 33.3mcg.
1845	d/c NTG - ↓ 70 BP
	Placed fluids back.
1855	Tubed c 8.5 OET. Taped at 21. CO_2 detector (+) pink/tan
	Bilateral BS present. NG ↓ LIWS. Placement verified.

INTAKE

CRYSTALLOID

Lactated Ringers

1 #1 ABSORBED 2 ___ ABSORBED 3 ___ ABSORBED 4 ___ ABSORBED 5 ___ ABSORBED 6 ___ ABSORBED
7 ___ ABSORBED 8 ___ ABSORBED 9 ___ ABSORBED 10 ___ ABSORBED 11 ___ ABSORBED 12 ___ ABSORBED
TOTAL 1900

Normal Saline

1 ___ ABSORBED 2 ___ ABSORBED 3 ___ ABSORBED 4 ___ ABSORBED 5 ___ ABSORBED 6 ___ ABSORBED
7 ___ ABSORBED 8 ___ ABSORBED 9 ___ ABSORBED 10 ___ ABSORBED 11 ___ ABSORBED 12 ___ ABSORBED
TOTAL ___

ED TOTAL 1900

COLLOID

Packed Cells

1 50 ABSORBED 2 ___ ABSORBED 3 ___ ABSORBED 4 ___ ABSORBED 5 ___ ABSORBED 6 ___ ABSORBED
7 ___ ABSORBED 8 ___ ABSORBED 9 ___ ABSORBED 10 ___ ABSORBED 11 ___ ABSORBED 12 ___ ABSORBED
TOTAL ___

FFP

1 ___ ABSORBED 2 ___ ABSORBED 3 ___ ABSORBED 4 ___ ABSORBED 5 ___ ABSORBED
TOTAL ___

Platelets

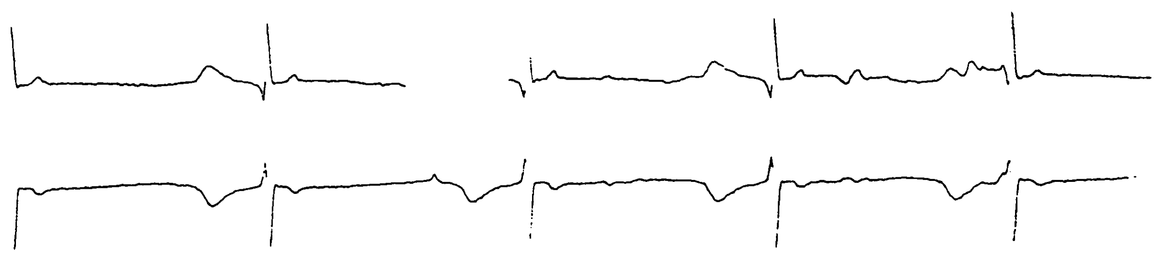
1 ___ ABSORBED 2 ___ ABSORBED 3 ___ ABSORBED 4 ___ ABSORBED 5 ___ ABSORBED
TOTAL ___

ED TOTAL 50

OUTPUT

R Chest Tube —
L Chest Tube —
NG 18:35 Ø
Urine 250
Other ___

ED TOTAL 250



Disposition:

☐ Admit / Discharge / (Transfer To) ___ Date ___ Time 18:45 Report Called ___

☐ Expired Date ___ Time ___ Coroner Notified ☐ Yes ☐ No Time ___ Autopsy ☐ Yes ☐ No

☐ C.O.R.E. Notified Date ___ Time ___

☐ Attending Notified Dr. ___ Date ___ Time ___

☑ Family Notified Date ___ Time ___ ☑ Here Time ___ ☐ Unable to Reach Time ___

☐ Pastoral Care Notified Date ___ Time ___

☐ Other Notified ___ Date ___ Time ___

☑ Valuables ☐ With Patient ☑ With Family ☐ To Cashiers

PATIENT INFORMATION

BEST AVAILABLE

PATIENT NAME: ____ ____________

PATIENT ACCT: # ____ ____________

TIME	P	R	BP	NURSING NOTES
				Verified my IV by anesthesia.
18:45				Stat Medivac arrived
				approx 18:25.
				IV fluid + PC's changed to
				Stat Medivac tubing.
				Care assumed by Stat
				Medivac.
				Pre-intubation drugs given
helipad				by Stat Medivac.
				Transported to helipad.
Late Entry				Family escorted to bedside bedside
				by RN @ 18:35.
				Pt's purse & watch given to
				(Pt relative working
				c PERT team
18:50				Attempt to call report to WVU ER
				line busy
18:51				Attempt to call WVU
				still unsuccessful
18:55				2-3 more calls to WVU, line
19:				Busy.

MEDICAL CENTE\

CONSULTATION

PATIENT: ACCT#/MR#:
ADM/DIS DATES: LOCATION: VER
PHYSICIAN: ' AGE: 71
COPIES TO: M.D., M.D. and

DATE OF CONSULTATION: 96

This is a 71 year old male who was involved in an auto accident on 96. He was brought to as a Level I Trauma and seen by Dr. I was asked to see him because of aortic injury.

On examination in the trauma room his blood pressure and pulse were acceptable with a blood pressure systolic ranging from 90 to 120 and his pulse was bradycardic at about 45 to 60 but regular sinus rhythm. He was awake and alert. He complained of substernal chest discomfort; however, he was breathing easy and his lungs were clear. His abdomen was soft. Extremities and skeleton revealed no major deformities. Neurologically he was intact.

Initial chest x-ray revealed a wide mediastinum. Arteriogram was done and confirmed an aortic arch injury. There was a tear of the aorta at the arch just distal to the innominate artery but proximal to the left carotid artery. The aorta was also an anomaly in that it was a right descending aorta. During the aortogram the patient became somewhat hypertensive with systolic blood pressures in the 150s. He was started on Nitroglycerin and his blood pressure came down to a systolic of 100 to 120. He remained stable with no new problems with regards to chest pain, shortness of breath or anything else of major concern.

It was decided in order to repair the injury he would need profound hypothermia and complete circulatory arrest with cardiopulmonary bypass. I decided that he was not an appropriate case to do at and that he needed to go to a tertiary center with more help. I talked to the University of but the patient was a Health Plan patient. For that reason I talked with who gave the okay to send him to University. I talked to at University who accepted him in transfer. The weather was a problem in that several of the helicopter services would not fly but finally Helicopter Service from said they would take him to . He was transported by helicopter to When he left he was in stable but critical condition. I talked to his sister as his son was not yet available. I told the three family members there that his condition was extremely critical and usually this is fatal at the scene of the accident. I told them I was not too sure if anyone could help his situation. He would have an extremely dangerous operation to try to control this and repair his problem. I explained the situation also to the patient as best I could. I told him he was critically injured and he would be best cared for at a tertiary care center such as

D:
T: ,--,-- .IRT

M.D.

ACCT/MR #:

*LIVE** Database DRAFT COPY

Run: 96-12:24 by Page 1 of 1

CN2

MEDICAL CENTER

EMERGENCY TRAUMA RECORD

MEDICAL RECORD #: ACCOUNT #:
PATIENT NAME: ADM DATE/TIME:
DISPOSITION: DIS DATE/TIME:
FAMILY PHYSICIAN: M.D.
COPIES TO:

SERVICE DATE:

CC: Trauma.

Pt. was seen by the trauma service, Dr. who was present when the pt. arrived. Care of the trauma pt. was by the trauma service without involvement by myself.

Condition at discharge: CRITICAL
Diagnosis at discharge: TRAUMA, MVA, LEVEL ONE

D:
T:

<<Signature on File>>

ACCT#/UNIT#:

LIVE Database

Run: 96-12:24 by

CN 1

Pg 2 of 2

PERFUSION RECORD

HOSPITALS

BEST AVAILABLE

Date [redacted]

Patient Name [redacted] Age [redacted]

Procedure ______ Oxygenator Pg 1

Surgeon ______ Perfusionist [redacted] Art Cannula [redacted]

Weight 80 kg 5133 Height 6ft ______ m² All: NKDA 1996 Ven Cannula ______

Flow ______

TIME	PRESSURES AMP	CVP	PAD	ART RES	FLOW Blood	°c O2	Air	TEMP Rectal	Esoph	Ear Heart		BLOOD GAS ANALYSIS PH	PCO2	PO2	BASE	HCO3	°c HCT	HMS/ACT	N F L	EVENT
2359	66	—	—	200	4.7	50	5.0	33.4	—	—	A V						20	4.5	F	100 meq Bicarb ACT, HC, HCT
0009	50	—	—	200	4.7	50	5.0	33.4	—	—	A V						—	—	F	100 meq Bicarb
0015	26	—	—	—	—	—	—	33.4	—	—	A V						—	—		OFF CPB
1216	—	—	—	—	—	—	—	—	—	—	A V									Pt Expired.

XC ON ______

XC OFF ______

CARDIOPLEGIA

AMT (cc)	M	TEMP	C	SITE	TIME
		Pg 1			

BLOOD RECORD

TYPE ______ WB ✓

PRC ✓

UNITS

PRE PUMP DRUGS

HEPARIN ______

BICARB ______

MANNITOL ______

ALBUMIN ______

PUMP VOLUME GAIN

PLASMALYTE-A ______

BLOOD ______

BICARB ______

HEPARIN ______

ALBUMIN ______

CARDIOPLEGIA ______

MANNITOL ______

TOTAL IN ______

Pg 1

XC TIME ______ MIN.

PUMP TIME ______ MIN.

CIRC ARREST TIME ______ MIN.

PUMP VOLUME LOSS

REMAINING IN PUMP ______

SAMPLES ______

BLOOD LOSS ______

URINE OUTPUT ______

ULTRAFILTRATE ______

TOTAL OUT ______

Lytes

K⁺	Ca⁺⁺

TOTAL GAIN ______

TOTAL LOSS ______

Pg 1

COMMENTS: N = Neo. F = Forane. L = Levo

Anesthesia [redacted]

PA: ______

PERFUSIONIST SIGNATURE ______

OR-00 (R5 96)

Pg 1 of 2

[redacted] HOSPITALS

BEST AVAILABLE

PERFUSION RECORD

Date ________ ________

Patient Name ______________________________ Age ________

Procedure *Repair Thoracic Transection* [redacted] Oxygenator *Max.*

Surgeon [redacted] Perfusionist [redacted] Art Cannula [redacted] *Bard.*

Weight *80* kg Height *183* cm BSA *2.02* m² All: *NKDA Per Anesthesia* Ven Cannula *36-46 2 stg*

Flow *3.2 (1.6) - 5.2 (2.6)*

TIME	PRESSURES: AMP	CVP	PAD	ART RES	FLOW: Blood	% O2	Air	TEMP: Rectal	Esoph	Ear/Heart	A/V	BLOOD GAS ANALYSIS: PH	PCO2	PO2	BASE	HCO3	% HCT	HMS ACT	N F L	EVENT
2039	63	—			—						A V									24,000 u Hep
2045	67	—	—	70	2.0	60	4.0	34.5	—		A V						—	999		On CPB Act, HC
2048	—										A V						—	—		Off CPB Δ Can x2
2100	57	—	—		2.6	40	4.0	—			A V						—	—		On CPB
2115	56	—			3.0	30	3.0	35.6	—	—	(A V)	7.1 / 6.99	53 / 62	301 / 243	-12 / -14 (75%)	16 / 15	25	BOOR 999+	L	Act, HC, Hct
2119	—				RCP 300					27.6	A V						—	—	—	Off CPB, R. Cereb on
2134	—				300	.21	1.0	35.6	—	16.7	A V						—	—	—	R. Cereb
2149	—				.200	.21	1.0	33.7	—	12.2	A V						—	—	—	R. Cereb
2155	58	—		80	2.5	30	2.0	33.7	—	11.2	A V						—		—	On CPB, Rewarm
2202	41	—	—	130	3.8	30	3.0	35.6	—	11.1	(A V)						24	3.0 / 999	L	Act HC, Hct, Bicarb 100 meq
2215	35	—	—	130	4.0	40	4.0	33.6	—	10.8	(A V)	7.51 / 7.05	14 / 42	202 / 25	-7 / -16 (46%)	13 / 12	[illegible]	BOOR	L	Gas
2219	59	—		200	3.8	40	4.0	35.6	—	19.7	A V								L	Cool, HC, Act
2225	58	—		210	4.0	40	4.0	35.6	—	20.1	A V								—	100 meq Bicarb
2233	—				.200	21	1.0	35.6	—	20.6	A V						—		—	Off CPB, R Cereb ov
2252	—	—	—	—	.200	21	1.0	33.5	—	21.4	A V						—		—	Blood Temp -13°
2257	53	—	—	100	2.6	30	2.0	33.5	—	21.2	A V						15	BOOR 999+	F	On CPB Act, HC, Hct
2306	65	—	—	200	3.7	30	4.0	33.5	—	—	(A V)	7.48 / 7.16	26 / 49	275 / 40	-5 / -9 (75%)	18 / 17	—		F	Gas
2316	66	—	—	200	3.8	40	4.0	33.5	—	—	A V						—		F	50 meq Bicarb
2331	47	—	—	170	4.5	40	4.0	33.4	—		A V						16	BOOR	L	50 meq Bicarb, Act HC, Hct
2345	73	—	—	150	4.8	50	4.0	33.4	—		A V						—		F	50 meq Bicarb

XC ON ____________

XC OFF ____________

PRE PUMP DRUGS
- HEPARIN *10,000 u*
- BICARB *50 meq*
- MANNITOL *0*
- ALBUMIN *25 g*

Ischemic ~~XC~~ TIME *60 (36+24)* MIN.

PUMP TIME *139* MIN.

CIRC ARREST TIME *60 (36+24)* MIN.

CARDIOPLEGIA *(200)*

AMT (cc)	M TEMP C	SITE	TIME

PUMP VOLUME GAIN
- PLASMALYTE-A *16,000*
- BLOOD *2750*
- BICARB *550*
- HEPARIN *0*
- ALBUMIN *1250*
- CARDIOPLEGIA *0*
- MANNITOL *0*

TOTAL IN *20,700*

PUMP VOLUME LOSS
- REMAINING IN PUMP *4800*
- SAMPLES *80*
- BLOOD LOSS *8,000*
- URINE OUTPUT *51*
- ULTRAFILTRATE *0*

TOTAL OUT *12,931*

TOTAL (GAIN) LOSS *7769*

Lytes

	K⁺	Ca⁺⁺
2253	6	0.59
	5.8	0.54

BLOOD RECORD
TYPE *O pos* WB ____ PRC *✓*

UNITS *27GC 27842, 27GC 67906, 27GC 27885, 27GC 27957* @ 2102

2316 *27GC 27966, 27GC 27975, 27GC 27963*

27GC 28218, 27V51025 2345

COMMENTS: N = Neo. F = Forane. L = Levo

MVA, Ao Transection

PERFUSIONIST SIGNATURE [redacted] ____________________

Anesthesia [redacted]

PA ____________________

OR-007 (R5 96)

BODY DIAGRAMS AND MEDICAL RECORDS
FROM
FACILITY TO WHICH
OCCUPANT WAS TRANSFERRED AND HOSPITALIZED

OCCUPANT INJURY CLASSIFICATION

Body Region

(1) Head
(2) Face
(3) Neck
(4) Thorax
(5) Abdomen
(6) Spine
(7) Upper Extremity
(8) Lower Extremity
(9) Unspecified

Type of Anatomic Structure

(1) Whole Area
(2) Vessels
(3) Nerves
(4) Organs (includes Muscles/ligaments)
(5) Skeletal (includes joints)
(6) Head - LOC
(9) Skin

Specific Anatomic Structure

Vessels, Nerves, Organs, Bones, Joints are assigned consecutive two digit numbers beginning with 02.

The exceptions to this rule apply to:

Whole Area
(02) Skin - Abrasion
(04) Skin - Contusion
(06) Skin - Laceration
(08) Skin - Avulsion
(10) Amputation
(20) Burn
(30) Crush
(40) Degloving
(50) Injury - NFS
(90) Trauma, other than mechanical

Head - LOC
(02) Length of LOC

(04) Level
(06) of
(08) Consciousness

(10) Concussion

Spine
(02) Cervical
(04) Thoracic
(06) Lumbar

Level of Injury

Specific injuries are assigned consecutive two-digit numbers beginning with 02.

To the extent possible, within the organizational framework of the AIS, 00 is assigned to an injury NFS as to severity or where only one injury is given in the dictionary for that anatomic structure. 99 is assigned to any injury NFS as to lesion or severity.

Abbreviated Injury Scale

(1) Minor Injury
(2) Moderate Injury
(3) Serious Injury
(4) Severe Injury
(5) Critical Injury
(6) Maximum (untreatable)
(7) Injured, unknown severity

Aspect

(1) Right
(2) Left
(3) Bilateral
(4) Central
(5) Anterior
(6) Posterior
(7) Superior
(8) Inferior
(9) Unknown
(0) Whole region

SOURCE OF INJURY DATA

OFFICIAL RECORDS
(1) Autopsy records with or without hospital/medical records
(2) Hospital/medical records other than emergency room (e.g., discharge summary)
(3) Emergency room records only (including associated X-rays or other lab reports)
(4) Private physician, walk-in or emergency clinic

UNOFFICIAL RECORDS
(5) Lay coroner report
(6) E.M.S. personnel
(7) Interviewee
(8) Other source (specify):

(9) Police

INJURY SOURCE CONFIDENCE LEVEL

(1) Certain
(2) Probable
(3) Possible
(9) Unknown

DIRECT/INDIRECT INJURY

(1) Direct contact injury
(2) Indirect contact injury
(3) Noncontact injury
(7) Injured, unknown source

OFFICIAL INJURY DATA — SOFT TISSUE INJURIES

Air bag deployed (NN)

Restrained?

__ No ? (PP1)
__ Yes

Blood Alcohol Level (mg/dl)

BAL = 0 (LR1, PP1)

Glasgow Coma Scale Score

GCSS = ____

Units of Blood Given

to PROC (NN)
Units = 26 (LR1)

Arterial Blood Gases

pH =	7.44	7.10	7.57	7.09
PO_2 =	173	96	202	301
PCO_2	26.2	46.7	13.8	53.1
HCO_3	17.8	14.7	12.8	16.2
Base Excess	-4.1	-13.2	-7.3	-12.2
	1934	2047	2216	2110
	(LR1) PP1	(LR2)	(LR3)	(LR4)

Arterial Values

Air bag deployed and knocked seat back (NN)

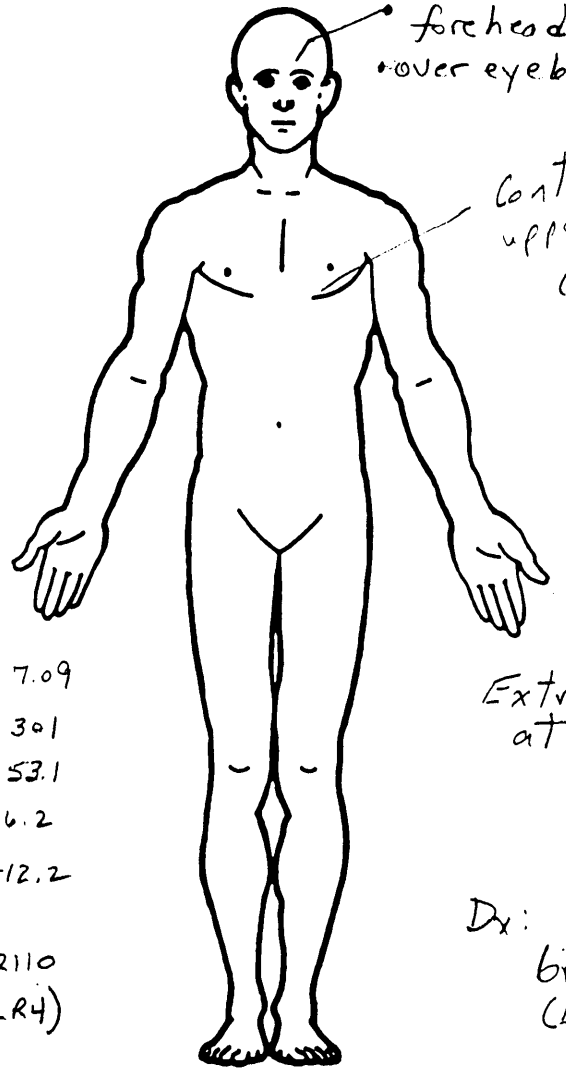
• Head-on MVA (NN, HP, PP1, PP2, PP3)

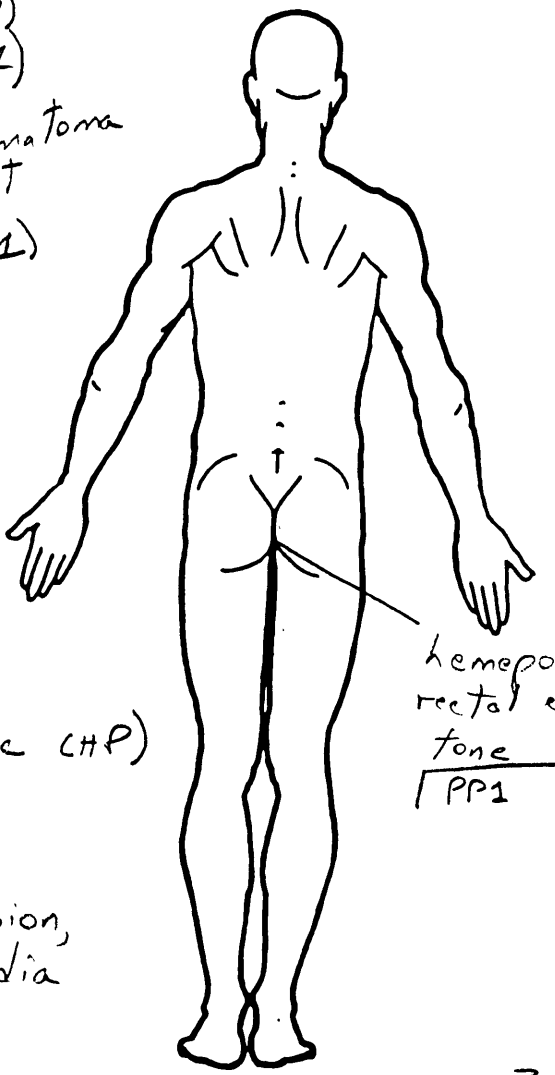
Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)

Ø depression or lesion over head (PP1)

Laceration, 2 cm, (L) forehead (ER, HP) over eyebrow (PP1)

Contusion/hematoma upper (L) chest (NN, HP, PP1)





Extremities: atraumatic (HP)

hemepositive rectal exam, poor tone (NN, HP, PP1)

Dx: Hypotension, bradycardia (ER, HP)

? ETOH (PP1)

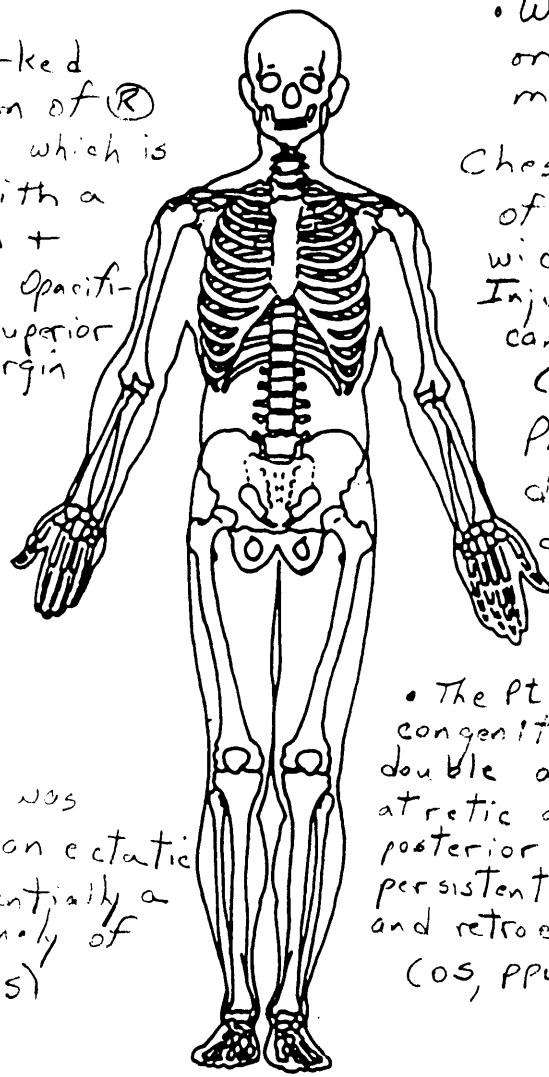
OFFICIAL INJURY DATA — SKELETAL INJURIES

• Pt suffered a high velocity deceleration injury due to a head-on MV crash (OS)

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)

Chest, C-Spine, Pelvis X-rays ordered (WN)

Chest: marked opacification of (R) hemithorax which is consistent with a large effusion + atelectasis. Opacification at (L) superior lung field margin (PX1)

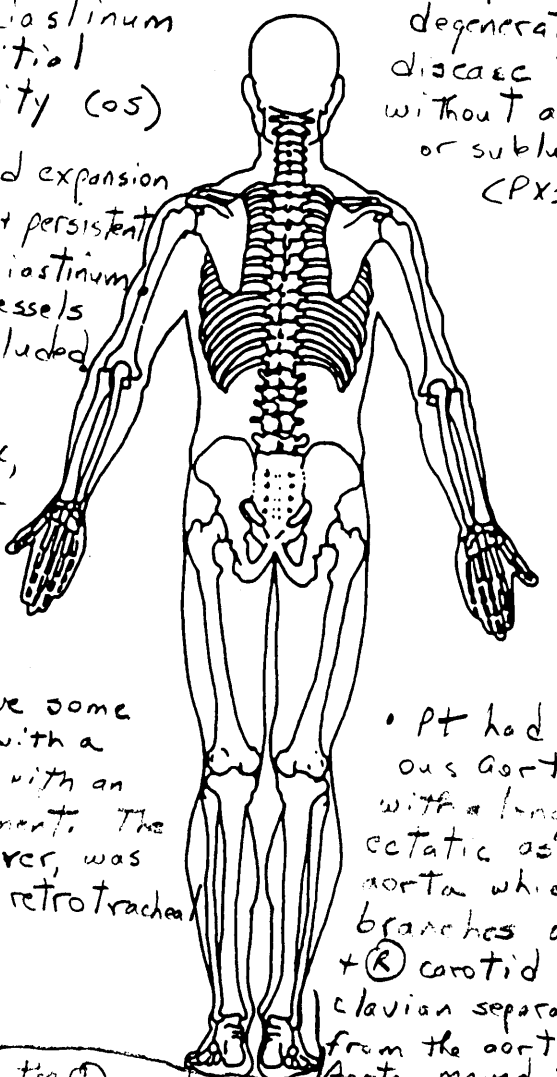


• Widened mediastinum on X-ray @ initial medical facility (OS)

Chest: Increased expansion of (L) lung field + persistent widening of mediastinum. Injury to great vessels cannot be excluded (PX2)

Pelvis: No Fx, dislocation or diastasis is noted (PX1)

C-Spine: advanced degenerative disk disease from C_2-C_7 without acute Fx or subluxation (PX1)



Pt by history was known to have an ectatic aorta and potentially a congenital anomaly of the aorta (OS)

• The Pt seems to have some congenital anomaly with a double aortic arch with an atretic anterior segment. The posterior segment, however, was persistent and passed retrotracheal and retroesophageally (OS, PP4)

• Pt had an anomalous aortic arch with a long uncoiled ectatic ascending aorta which gave branches of the (R) + (R) carotid + (R) subclavian separately from the aortic arch. Aorta moved towards the (L) and gave separate origins of the (L) carotid + (L) subclavian. The aorta then descended and took a tortuous course throughout the chest (OS)

INJURY SOURCES

FRONT
(001) Windshield
(002) Mirror
(003) Sunvisor
(004) Steering wheel rim
(005) Steering wheel hub/spoke
(006) Steering wheel (combination of codes 004 and 005)
(007) Steering column, transmission selector lever, other attachment
(008) Cellular telephone or CB radio
(009) Add on equipment (e.g., tape deck, air conditioner)
(010) Left instrument panel and below
(011) Center instrument panel and below
(012) Right instrument panel and below
(013) Glove compartment door
(014) Knee bolster
(015) Windshield including one or more of the following: front header, A (A1/A2)-pillar, instrument panel, mirror, or steering assembly (driver side only)
(016) Windshield including one or more of the following: front header, A (A1/A2)-pillar, instrument panel, or mirror (passenger side only)
(017) Windshield reinforced by exterior object (specify)

_____

(019) Other front object (specify):

_____

LEFT SIDE
(051) Left side interior surface, excluding hardware or armrests
(052) Left side hardware or armrest
(053) Left A (A1/A2)-pillar
(054) Left B-pillar
(055) Other left pillar (specify):

_____

(056) Left side window glass
(057) Left side window frame
(058) Left side window sill
(059) Left side window glass including one or more of the following: frame, window sill, A (A1/A2)-pillar, B-pillar, or roof side rail.
(060) Other left side object (specify):

_____

RIGHT SIDE
(101) Right side interior surface, excluding hardware or armrests
(102) Right side hardware or armrest
(103) Right A (A1/A2)-pillar
(104) Right B-pillar
(105) Other right pillar (specify):

_____

(106) Right side window glass
(107) Right side window frame
(108) Right side window sill
(109) Right side window glass including one or more of the following: frame, window sill, A (A1/A2)-pillar, B-pillar, or roof side rail.
(110) Other right side object (specify):

_____

INTERIOR
(151) Seat, back support
(152) Belt restraint webbing/buckle
(153) Belt restraint B-pillar or door frame attachment point
(154) Other restraint system component (specify):

_____

(155) Head restraint system
(160) Other occupants (specify):

_____

(161) Interior loose objects
(162) Child safety seat (specify):

_____

(163) Other interior object (specify):

_____

AIR BAG
(170) Air bag-driver side
(171) Air bag-driver side and eyewear
(172) Air bag-driver side and jewelry
(173) Air bag-driver side and object held
(174) Air bag-driver side and object in mouth
(175) Air bag compartment cover-driver side
(176) Air bag compartment cover-driver side and eyewear
(177) Air bag compartment cover-driver side and jewelry
(178) Air bag compartment cover-driver side and object held
(179) Air bag compartment cover-driver side and object in mouth
(180) Air bag-passenger side
(181) Air bag-passenger side and eyewear
(182) Air bag-passenger side and jewelry
(183) Air bag-passenger side and object held
(184) Air bag-passenger side and object in mouth
(185) Air bag compartment cover-passenger side
(186) Air bag compartment cover-passenger side and eyewear
(187) Air bag compartment cover-passenger side and jewelry
(188) Air bag compartment cover-passenger side and object held
(189) Air bag compartment cover-passenger side and object in mouth
(190) Other air bag (specify)

_____

(195) Other air bag compartment cover (specify)

_____

ROOF
(201) Front header
(202) Rear header
(203) Roof left side rail
(204) Roof right side rail
(205) Roof or convertible top

FLOOR
(251) Floor (including toe pan)
(252) Floor or console mounted transmission lever, including console
(253) Parking brake handle
(254) Foot controls including parking brake

REAR
(301) Backlight (rear window)
(302) Backlight storage rack, door, etc.
(303) Other rear object (specify):

_____

ADAPTIVE (ASSISTIVE) DRIVING EQUIPMENT
(401) Hand controls for braking/acceleration
(402) Steering control devices (attached to OEM steering wheel)
(403) Steering knob attached to steering wheel
(405) Replacement steering wheel (i.e., reduced diameter)
(406) Joy stick steering controls
(407) Wheelchair tie-downs
(408) Modification to seat belts, (specify): _____
(409) Additional or relocated switches, (specify):

_____

(410) Raised roof
(411) Wall mounted head rest (used behind wheel chair)
(412) Other adaptive device (specify):_____

_____

EXTERIOR of OCCUPANT'S VEHICLE
(451) Hood
(452) Outside hardware (e.g., outside mirror, antenna)
(453) Other exterior surface or tires (specify):

_____

_____

(454) Unknown exterior objects

EXTERIOR OF OTHER MOTOR VEHICLE
(501) Front bumper
(502) Hood edge
(503) Other front of vehicle (specify):

_____

(504) Hood
(505) Hood ornament
(506) Windshield, roof rail, A-pillar
(507) Side surface
(508) Side mirrors
(509) Other side protrusions (specify):

_____

(510) Rear surface
(511) Undercarriage
(512) Tires and wheels
(513) Other exterior of other motor vehicle (specify): _____

_____

(514) Unknown exterior of other motor vehicle

OTHER VEHICLE OR OBJECT IN THE ENVIRONMENT
(551) Ground
(598) Other vehicle or object (specify):

_____

(599) Unknown vehicle or object

NONCONTACT INJURY
(601) Fire in vehicle
(602) Flying glass
(603) Other noncontact injury source (specify): _____
(604) Air bag exhaust gases
(697) Injured, unknown source

OFFICIAL INJURY DATA —INTERNAL INJURIES

- Pt reportedly alert @ scene; extricated self from vehicle, then collapsed (NN, HP, OS, PP2)
- Walking on scene & collasped (PP1)

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)

Eyes: 2mm & poorly reactive (HP)

- hemothorax (PP1)

(R) Hemothorax (ER, HP)

- Large amount of hematoma present beneath the manubrium (OS)

- Pt unresponsive on arrival @ 2nd facility (PP1)

- Aortogram @ initial facility showed a transection of aorta distal to (R) carotid takeoff and proximal to (L) carotid takeoff (OS)

(L) hemothorax (HP)

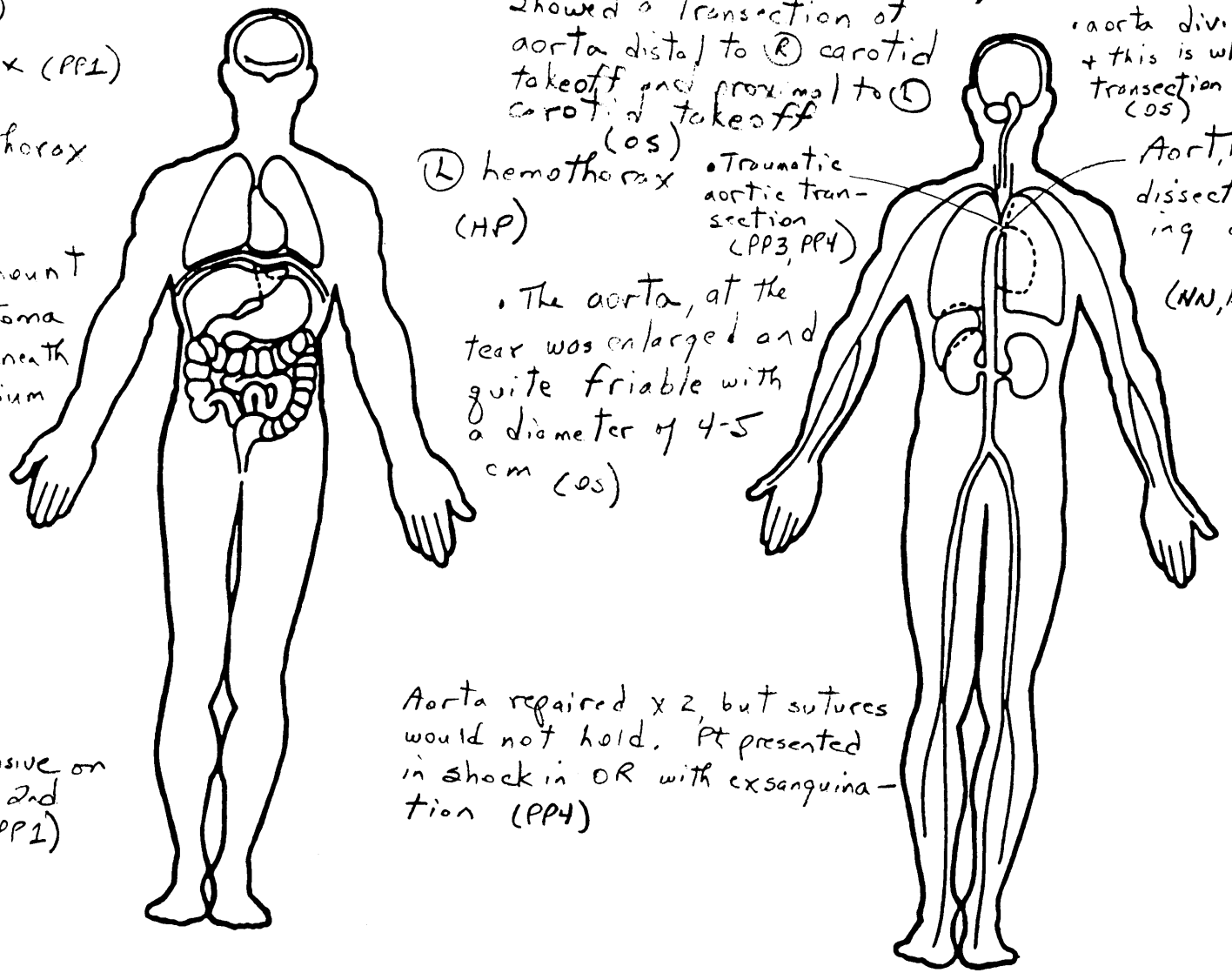
- Traumatic aortic transection (PP3, PP4)

- The aorta, at the tear was enlarged and quite friable with a diameter of 4-5 cm (OS)

Aorta repaired x 2, but sutures would not hold. Pt presented in shock in OR with exsanguination (PP4)

- aortic transection was midline (OS, PP3)
- aorta divided posteriorly & this is where the transection occurred (OS)

Aortic Tear, dissection, ascending aorta (NN, ER, HP, PP1)



CAUSE OF DEATH

Deceleration injury caused aorta to tear (PP4)

Time of Death 7:56 post-crash (OS)

ICD·9·CM

OTHER DRUGS (GV16)

Specimen Test Type	Drug(s)		Drug Type
___ Blood and urine tests ___ Blood test only X Urine test only ___ Other test ___ Unspecified (LR1)	Amphetamine	Negative	
	Barbiturate	Negative	
	Benzodiazephine	Negative	
	Cannabanoid	Negative	
	Cocaine metabolite	Negative	
	Opiate	Positive	Depressant
	Propoxyphene	Negative	

MEDICAL RECORD ABBREVIATIONS

Symbol	Record Type Description
A	Autopsy–medical information based upon an invasive examination of a body
ME	Medical examiner's record–where the information reported on the patient is based on a non-invasive examination of the body
AR	Admission record/summary–any medical information on this record should be considered as post-ER since it summarizes the patient's admission; these records are common in short hospitalizations and usually only contain: admission DX(s), final DX(s), and a listing of surgical treatments; ICD-9-CM codes are frequently available.
FS	Admission/discharge face sheet–face sheets are essentially the same as admission record/summaries and contain the same types of information as discussed above
DS	Discharge summary–shorten history of a patient's hospitalization highlighting the patient's major injuries; this record is often written from the perspective of its author which in many cases is a consultant
OS	Operative record–summary of a performed surgical operation often providing detailed information about a specific trauma; patients who survive the surgery are normally admitted; thus, this record is normally considered post-ER; however, if this record results from an outpatient surgery, then treat it as emergency-room related
PX	Radiographic records–taken after the patient has been admitted, or while in surgery or intensive care
PN	Patient progress notes–supplemental record containing additional nurses notes taken after the patient's admission
HP	History and physical exam–medical history and the results of the physical exam obtained by the emergency room physician assigned to the patient upon arrival at the emergency room
CN	Consultation record–consultations are in essence additional history and physicial exams performed by doctors whose expertise was requested by the emergency room physician; the consultation may occur during the emergency room visit or after admission
ER	Emergency room report–where the author of this information is undefined
EN	Emergency room nurse–"nurse/complaint of" section on the emergency room report
ED	Emergency room doctor–"objective/physical exam" section plus "diagnosis and treatment" sections (i.e., doctor portion of emergency room report)
NN	Nurse notes–supplemental record containing additional notes taken by the emergency room nurse(s)
EX	Radiographic records–taken during the patients stay in the emergency room
CV	Coroner's verdict–statement of cause of death for legal specific regarding injuries; care must be exercised to ascertain the credentials of the verdict's author.
CR	Coroner's report–medical information based upon a noninvasive examination performed by a person who is not a doctor but who has the title of a coroner
ET	Emergency medical technician–report by a person who qualifies as an emergency medical services technician (EMS or EMT)
O	Other source–medical information based on an other source (e.g., newspaper, DVM–Doctor of Veterinary Medicine)

PP = Physician Progress (Staff) Notes
LR = Laboratory Record

BEST AVAILABLE

EMERGENCY DEPARTMENT

UNIVERSITY HOSPITALS

CRITICAL CARE/TRAUMA ASSESSMENT FLOW SHEET

Addressograph

Date ____ TRANSPORTED BY: Transported from ☐ Home

Time of Arrival ________ Private Vehicle ☐ ________ Another Facility ☒

Time of Injury ________ Helicopter ☐ STAT ________ Scene of Incident ☐

Ambulance ☐

CHIEF C/O / HISTORY OF INJURY: MVC - Headon Reported to have [illegible] hematoma (L) chest BP 60/0 Contusion upper (L) chest [illegible] and [illegible] [illegible] Pt reportedly was alert on scene Extricated [illegible] from vehicle [illegible]

SIGNATURE ________

PMH

- ☐ DM
- ☐ COPD
- ☐ HTN ?
- ☐ MI
- ☐ CHF
- ☐ SUBSTANCE ABUSE
- ☐ RENAL INSUFF
- ☐ LIVER DISEASE
- ☐ OTHER ____

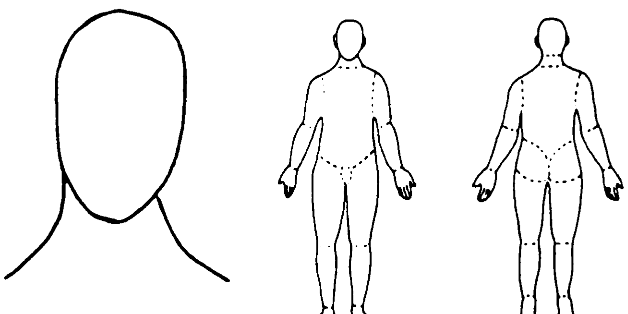
CURRENT MEDICATIONS	ALLERGIES	MISCELLANEOUS
?	?	Age 71 Yrs. ____ mo
		Weight ____ lbs. ____ oz.
		Seat Belt: No ☐ Yes ☐
		Other ____
		Last Tetanus ____

PRIMARY SERVICE			
Surg Trauma	Time	Called ____	Arrived ____
Resident	Vargas		
Resident			
Sr. Resident			
Staff	Reynolds		

EMERGENCY DEPARTMENT Staff		Nursing	
Attending	Paulson	RN	[illegible]
Resident	Dosin	RN	Egan
Other		N.A.	
Other		Other	

CONSULTS

Service: [illegible]	Service: CT Surg	Service: ____	Service: ____
Resident: Baker	Resident: English	Resident: ____	Resident: ____
Time Called ____	Time Called ____	Time Called ____	Time Called ____
Time Arrived ____	Time Arrived ____	Time Arrived ____	Time Arrived ____



HEAD FRONT BACK

- D - Deformity
- L - Laceration
- A - Abrasion
- E - Ecchymosis
- G - GSW
- S - Stab Wound
- B - Burns

INITIAL ASSESSMENT

RESPIRATORY

Breath Sounds:	R	L
Normal	☒	☒
Absent	☐	☐
Rales	☐	☐
Rhonchi	☐	☐
Other ____	☐	☐
Other ____	☐	☐
Other ____	☐	☐

O_2-Flow Rate 100% Via BvM

Chest Movement Yes

- Paradoxical ____ ☐
- Symmetrical ____ ☒
- Asymmetrical ____ ☐
- Other ____

Chest Tube

Present ____ Yes ☐
Size ____

ET Tube

Present orally Yes ☒
Size 8 1/2 21 cm @ lip
Cough Reflex Yes ☐
Gag Reflex Yes ☐
Respiratory Rate 20
Labored ☐ Unlabored ☐
Assisted ☒

NEUROLOGICAL

PUPILLARY RESPONSE

9 8 7 6 5 4 3 2

	PTA R	PTA L	Time	ED R	ED L
Size				2	2
Brisk	☐	☐		☐	☐
Sluggish	☐	☐		☒	☒
No Reaction	☐	☐		☐	☐
Other					

Cold Caloric Response: No ☐ Yes ☐

EXTREMITIES (Paralyzed Chemically)

	Movement No	Movement Yes	Sensation No	Sensation Yes
R Arm	☐	☐	☐	☐
L Arm	☐	☐	☐	☐
R Leg	☐	☐	☐	☐
L Leg	☐	☐	☐	☐

Grips ____
Babinski ____
Injury ____
Splints ____

SPINAL PROTECTION

C-Spine: No ☐ Yes ☒
Type P-collar
Spine Board: No ☐ Yes ☐
Other ____

GCS (Intubated)

EYE OPENING	Spontaneous	4
	Voice	3
	Pain	2
	None	1
VERBAL RESPONSE	Oriented	5
	Confused	4
	Inappropriate	3
	Incomprehensible	2
	None	1
MOTOR RESPONSE	Obeys	6
	Localizes Pn	5
	Withdraw	4
	Flexion	3
	Extension	2
	None	1

TOTAL GCS =

TRAUMA SCORE

GCS POINTS	14-15	5	
	11-13	4	
	8-10	3	
	5-7	2	A-
	3-4	1	
RESPIRATORY RATE	10-24	4	
	24-35	3	
	36 or greater	2	
	1-9	1	B- 0
	None	0	
RESPIRATORY EXPANSION	Normal	1	
	Retractive	0	C- 1
SYSTOLIC BP	90 or greater	4	
	70-89	3	
	50-69	2	
	0-49	1	D- 2
	No Pulse	0	
CAPILLARY REFILL	Normal - <2 sec.	2	
	Delayed >2 sec.	1	E- 1
	None	0	

TOTAL TRAUMA SCORE A + B + C + D + E = ____

CARDIOVASCULAR

Pulse 87 BP 60/0 Temp 36.3°C (R)
Monitor ☐ Rate ____ Rhythm ____
Capillary Refill < 2 sec. Normal ☐
> 2 sec. Delayed ☒
None ☐
External Bleeding: ☒ No Yes ☐
Est. Amt./Rate ____ Site ____

Skin: Color - Pink ☐ Pale ☒ Cyanotic ☐ Jaundice ☐ Mottled ☐ Other ____ ☐

(L) femoral line

Temperature - Hot ☐ Warm ☐ Cool ☒ Cold ☐

Character - Moist ☐ Dry ☒

Pacemaker Present: No ☒ Yes ☐ Rate ____
IV Present: No ☐ Yes ☒
MAST: No ☒ Yes ☐ Inflated No ☐ Yes ☐

GASTRO-INTESTINAL

RUQ | LUQ
RLQ | LLQ

Bowel Sounds:
- Present ☐
- Absent ☒
- Soft ☒
- Firm ☐
- Rigid ☐
- Pain ☐
- Tender ☐
- Rebound ☐

Rectal: Yes ☐ No ☐
Hem.: Pos ☐ Neg ☐
N G tube present? No ☐ Yes ☒ Size ____
Pregnant: No ☐ Yes ☐
LMP ____ Weeks ____
Nausea: No ☐ Yes ☐
Vomiting: No ☐ Yes ☐
Character ____
Diarrhea: No ☐ Yes ☐

GENITO-URINARY

Foley Present: No ☒ Yes ☐
Size ____
Voided Spontaneously: No ☐ Yes ☒
Urine Dip Hem.: Neg ☐ Pos ☐
Neg ☐ Pos ☐
Bleeding Site ____ No ☐ Yes ☐
Amount/Rate ____

MOORE

NN

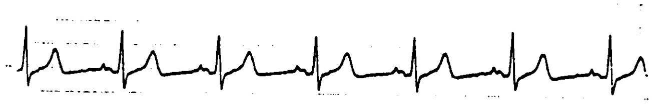
BEST AVAILABLE

INTERVENTIONS

Time | Lead | 12 Lead EKG ☐ Time

32 13SEP96

STRIP



GRAPHIC CONTROLS CORPORATION BUFFALO NEW YORK

LABS

Tests	Time	Results	1st	2nd
Trauma I ☐				
CBC ☐ c Diff ☐		Hb / Hct / WBC		
Chem I ☐		K / Na / BUN / Cl / BS / Other		
CPK ☐		CPK		
Amylase ☐		Amylase		
ETOH ☐		ETOH		
Total CO_2 ☐		Total CO_2		
ABG ☐		pH		
1st on ____ O_2		pO_2		
2nd on ____ O_2		pCO_2		
UA ☐		UA		
Type & Screen ☐		Blood Type		
Trauma II (I) ☒				
Platelet Count ☐		Platelet Ct		
PT / PTT ☐		PT / PTT		
Fibrinogen ☐		Fibrinogen		
FDP ☐		FDP		
Type & Cross ☒		Ready in lab		
Units # ___ WB # ___ PC		Sent down		
Peritoneal Lavage Sent to Lab ☐		pos - blood / neg - clear / cell count		

Others	Time	Results	1st	2nd

SPECIAL

Special	Time
Intubation — ☐	
Size ____	
Arteriogram ☐	
Aortagram ☐	
A Line ☐	
Chest Tube Site	
A ____ ☐	
B ____ ☐	
C ____ ☐	
D ____ ☐	
Central Site ____ ☐	
Cut Down ____ ☐	
Foley Size ____ ☐	
Ng Size ____ ☐	
External Pace ____ ☐	

RADIOLOGY

Radiology	Time
CXR ☒	
C-Spine ☒	
Pelvis ☒	
Skull ☐	
Abdomen ☐	
Extremities ☐	
Other ____ ☐	

C.T. SCAN	Time
Head ☐	
Abdomen ☐	
Body ☐	

FLUIDS

IV Intake Time	Fluid/Amt	Infused	Time D/C'd	Sites Location	Ga	Time
PTA	LR	2000		Ⓡ ac	14	PTA
PTA	NS			Ⓡ hand	16	
PTA				Ⓛ ac	18	
PTA	PRBC — 3u			Ⓡ Subclav	8.5	
	PRBC x 3			Ⓛ fem	8.5	
	NS x 5L					

Oral Intake Time	Fluid	Amount	Output Time	Fluid	Amount
PTA			PTA		

Signature: ______________________ RN

PROGRESS NOTES

Time	BP	P	R	Medication	Trauma Score 1 hour (Reference Front Page) Time ____ Score ____
1919					To 12R Evaluation in progress.
1921	84/P	96	Bag		Vent settings - Rate 14 TV 700 FiO_2 100% Peep 5
1925					Hemepositive rectal exam poor tone Blood drawn from femoral art line and sent
1925					Pt voided spontaneously 200cc + Hemepositive
1926					8.5F Ⓡ subclavian line inserted per 1 L of NS wide open
1932	32/P	90	Vent		8.5FR Ⓛ femoral venous line per [illegible]
1935				36F chest	tube inserted Ⓛ chest per Dr. [illegible] - Blood return
1943	92/P	96	Vent	X-rays	Ⓡ side being prepped for chest tube
1945				Vecuronium	8mg IV Pt moving around on bed
				~~Versed 5mg~~	IV error
				4th unit	PRBC hung
1948					36Fr chest tube inserted on Ⓡ side blood [illegible] placed to pleurevac Sx.
1950				Versed 5mg	given IV
1953	72/P	92	Vent		
1956					5th unit of PRBC hung. Additional blood drawn and sent
2000	88/P	96	Vent		6th unit of PRBC hung
2005					To the OR
2010					Report called to Kelly in SICU

DISPOSITION

Family Notified No ☐ Yes ☐ Time: ____

Social Services No ☐ Yes ☐ Time: ____

Chaplin / Rabbi / Priest No ☐ Yes ☐ Time: ____

Admitted No ☐ Yes ☐

Room # ____ Time ____

Rpt. called to ____ Time: ____

Valuables Time: ____ to safe ☐ to family ☐

DISPOSITION:

CT/Angio ☐ Time ____

OR ☐ Time ____

Cath. Labs ☐ Time ____

Discharged ☐ Time ____

DER Time ____

Morgue ☐ Funeral Home ☐

INC.

EMERGENCY DEPARTMENT RECORD

PATIENT NAME:
HOSPITAL NUMBER:
DATE OF VISIT:

AGE/DATE OF BIRTH: /25

CHIEF COMPLAINT
Status post trauma.

ALLERGIES
Unknown.

MEDICATIONS
Unknown.

VITAL SIGNS
Blood pressure 62/, temperature 36.3°C, pulse 87, and patient was mechanically ventilated.

HISTORY OF PRESENT ILLNESS
This is a 71-year-old gentleman who was transferred from Medical Center via helicopter after being involved in a motor vehicular crash. The patient was in a head-on collision who reportedly self-extricated and was ambulatory at the scene until he collapsed. The patient was taken to Center where he was intubated via rapid sequence intubation. The patient then had an aortic arch score which showed an ascending aortic dissection. The patient was then flown from Medical Center to Memorial Hospital. The patient was accepted by the Trauma Surgery Service.

PAST MEDICAL HISTORY
Unable to be obtained.

FAMILY HISTORY
Unable to be obtained.

SOCIAL HISTORY
Unable to be obtained.

HP

BEST AVAILABLE

EMERGENCY DEPARTMENT RECORD

NAME ____ AGE ____ ☐ M ☐ F DATE ____ TIME ____

[redacted]

LMP ____

Pm Hx:

INJURY ☐

ALLERGIES

[redacted]

MEDICATIONS

IMM: UTD: Y/N F/U GIVEN ☐

TETANUS

VISUAL ACUITY OS ___/___ OD ___/___

TEMP:	HR:	RR:	BP:	WT:

TRIAGE SIG.

MEANS OF ARRIVAL: ☐ AUTO ☐ AMBULANCE ☐ FLIGHT

INJ. CODE ☐ EMERGENT ☐ URGENT ☐ NON-URGENT

PHYSICIAN ASSESSMENT

[redacted]

[redacted]

[redacted]

TIME	ORDERS	OFF BY	TIME
	[redacted]		

RESIDENT OR PA CHART DICTATED ☒ DATE

ATTENDING CHART DICTATED ☐ DATE / /

DIAGNOSTIC IMPRESSION

A) 1) Ascending aortic dissection -

2) (R) Hemothorax

3) 2cm laceration (L) forehead

4) Hypotension

5) Bradycardia Plan/ TO OR c CT Surgery

SIGNATURE

CONSULTANTS / TIME CALLED TIME IN

CONDITION: ☐ IMPROVED ☐ STABLE ☐ CRITICAL ☐ OTHER

DISPOSITION: ☐ HOME ☒ ADMIT TO: OR ACC. BY

77.02 MR FORM # ER-003 MR (R 2/96)

RESIDENT / PA / MS. (c̄ STAFF) ____ CHART TO FP ☐

CHART COMPLETE ☒

I HAVE SUPERVISED THIS PATIENT'S CARE AND WAS PHYSICALLY PRESENT IN THE EMERGENCY DEPARTMENT. FACULTY/ STAFF (Signature) ____ DATE ____

MEDICAL RECORD

ER

PATIENT NAME:
HOSPITAL NUMBER:
DATE OF VISIT:

PHYSICAL EXAMINATION

HEENT: Pupils approximately 2 mm and poorly reactive. Tympanic membranes were clear bilaterally. Nares were patent. One naris had an NG tube in place. The patient was orotracheally intubated with no evidence of lesions in the mouth. The trachea was midline. The endotracheal tube was at 21 cm at the lip. There was a 2-cm laceration to the left forehead. Chest: The patient had breath sounds clear bilaterally. There was a contusion to the left upper chest. Heart: Regular rate and rhythm with no murmurs, rubs, or gallops. Abdomen: Soft, nontender, nondistended, with absent bowel sounds. Rectal: Heme positive, no tone, normal prostate. Extremities: Atraumatic. The patient was paralyzed and sedated and had no movement or responses.

COURSE IN THE EMERGENCY DEPARTMENT

After initial evaluation, a chest, lateral C-spine, and pelvis films were obtained. The patient's pressure, which was low, had fluids run wide open. A right subclavian and left femoral line were both placed. Fluids were continuously run open. Pressures came up to 92/palpable. 0 Negative blood was sent from the blood bank, and the patient was started on packed red blood cells. The patient had a total of 5 units of packed red blood cells hung in the Emergency Department. The patient had bilateral chest tubes placed by after chest x-rays showed bilateral hemothoraces. got blood return from bilateral chest tubes. A Foley was placed. The NG which was placed at OVMC was placed to suction. Following bilateral chest tube placement, a repeat chest x-ray was performed which showed continued blood in the right hemithorax. The patient was taken directly to the OR. The patient was thought to be too unstable at this time to get a head CT.

ASSESSMENT

1. Ascending aortic dissection/tear
2. Bilateral hemothoraces.
3. A 2-cm laceration to the scalp, left forehead.
4. Hypotension.
5. Bradycardia.

PATIENT NAME: [redacted]
HOSPITAL NUMBER:
DATE OF VISIT:

DISPOSITION

The patient was taken to the OR by CT Surgery and Trauma Surgery.

_____ _____

M.D. DATE
Resident in Emergency Medicine
for

I have supervised this patient's care and was physically present in the Emergency Department.

_____ _____

DATE

Assistant Professor
Department of Emergency Medicine

D:
T:

HOSPITALS, INC.
DEPARTMENT OF SURGERY
OPERATION SUMMARY

PATIENT NAME:
HOSPITAL NUMBER:
DATE OF SERVICE:

AGE/DATE OF BIRTH:

PREOPERATIVE STATUS AND DIAGNOSIS

This is a 71-year-old white male who was reportedly in a motor vehicle accident in the area on 1996, at approximately 3:00 p.m. The patient suffered a high-velocity deceleration injury due to a head-on motor vehicle crash. The patient was taken to the Medical Center initially where he was intubated and initial trauma evaluation begun. The patient developed unstable hemodynamics and by history collapsed at the scene after initially being awake. The workup at Medical Center during their trauma evaluation and resuscitation revealed a widened mediastinum on chest x-ray and the patient underwent aortography. The patient by history was known to have an ectatic aorta and potentially a congenital anomaly of the aorta. This was documented by aortography in 3, the films of which were available in comparison. The aortogram in showed that the patient had a transection of the aorta distal to the right carotid takeoff and proximal to the left carotid takeoff. The patient had an anomalous aortic arch with a long uncoiled ectatic ascending aorta which gave branches of the right and right carotid and right subclavian separately from the aortic arch. The aorta then appeared to move towards the left and give separate origins of the left carotid and left subclavian vessels. It then descended and took a tortuous course throughout the chest. The patient had unstable hemodynamics and the thoracic surgeon in was not comfortable with approaching Mr. case and a decision was made in to transfer him to Memorial Hospital for further evaluation and treatment and consultation with cardiothoracic surgery here. These arrangements were made by Dr. of the trauma team and the patient was brought to On arrival, the patient was brought to the emergency department and Dr. of the cardiothoracic surgery service was summoned to initially evaluate the patient. He subsequently then called me to the emergency department where we found the patient being resuscitated by Dr. in extremis. He was intubated, in shock with a blood pressure between 30-60 systolic. Bilateral chest tubes had been placed and were draining arterial blood. The patient was however responding to volume resuscitation and the blood pressure was able to be stabilized at a pressure between 60-90 systolic. The aortogram was reviewed by me and comparison shots of patient's previous chest x-ray, today's chest x-ray, previous aortogram, and today's aortogram were all available for review. The patient had very difficult anatomy to elucidate; however, it was clear that the transection of the aorta appeared to be in the midline. Dr. was consulted by telephone

OS

PATIENT NAME:
HOSPITAL NUMBER:
DATE OF SERVICE: 96

and the patient's findings were elucidated. It was agreed upon that the best way to approach this lesion was through a midline sternotomy with the patient on cardiopulmonary bypass with complete circulatory arrest. This plan was given to Dr. who agreed. We were able to speak briefly to the patient's nephew who had driven in from when he heard of the accident and transfer to Memorial Hospital and briefly I spoke with this gentleman and described the situation of Mr. in shock with probably a ruptured aorta due to the motor vehicle accident and that since he was able with continued volume replacement to maintain a blood pressure we would try to obtain control of the aorta and attempt a repair. I was never able to assess the patient's neurological status preoperatively as he was intubated, paralyzed, and sedated. The patient was then emergently transferred to the cardiovascular operating room.

NAME OF PROCEDURE

Repair of traumatic transverse aortic transection.

SURGEONS

M.D. (staff), M.D. (assistant), M.D. (assistant).

DESCRIPTION OF PROCEDURE

With the patient in the operating room, he was prepared and draped in the usual sterile fashion. A cutdown of the left femoral artery was performed and proximal and distal control of the left common femoral artery was obtained. A #20 arterial cannula was placed after the patient was adequately anticoagulated with 3 mg/kg of heparin given intravenously. Once the arterial cannula was in place, it was held by Rumel tourniquets and arterial perfusion could then be undertaken. A midline median sternotomy was then performed and the anterior mediastinum was entered. There was a large amount of hematoma present beneath the manubrium and a limited incision in the pericardium was made to expose the right atrial appendage. After a pursestring was placed about the base of the right atrial appendage, a Sarns two-stage venous cannula was placed into the right atrium and into the inferior vena cava to provide venous drainage. Cardiopulmonary bypass was commenced and the patient was immediately cooled. Very carefully the pericardium was then fully opened and reflected and the ascending aorta and the anatomy of the great vessels was started to be revealed. The innominate vein was transected between two 2-0 silk suture ligatures. Once the innominate vein was ligated and transected, the proximal transverse arch could be visualized. The lungs kept coming up into the mediastinal space and the pleural spaces were opened. It was also noted that the patient appeared to be exsanguinating from the left and right chest tubes as arterial blood was freely flowly from these and the Pleur-Evacs were overflowing. The chest tubes were then clamped,

PATIENT NAME:
HOSPITAL NUMBER:
DATE OF SERVICE:

the pleural space was opened, and the pump suckers were placed into the pleural spaces to provide an attempt for red cell scavenging. It was obvious that the transection had let loose and that the mediastinal and visceral pleura was not containing the hematoma any longer. The patient was cooled to a systemic core temperature of 20°C and the cannula was placed into the superior vena cava retrograde to provide retrograde cold blood perfusion of the brain. This was begun without difficulty and then, with the patient's circulation turned off and drained, the heart was packed in ice and further dissection of the hematoma was performed. The right subclavian and carotid arteries were identified and distal to their takeoff, unfortunately behind the trachea and esophagus, the aorta dived posteriorly and this is where the transection had occurred. The patient seems to have some congenital anomaly with a double aortic arch with an atretic anterior segment. The posterior segment, however, was persistent and passed retrotracheal and retroesophageally. After thorough dissection of the area, it was noted that the distal end could be identified as well as the proximal tear and the aorta, which was enlarged and quite friable with a diameter of 4-5 cm, could be sutured. This was very tediously done as precisely as possible using a 3-0 Prolene pledgeted suture about the circumference of the tear. Care was taken to take as much buttress surrounding tissue to provide adequate stabilization of the repair. The ends of the aorta were brought together without difficulty or tension and the sutures were tied securely. The retrograde cerebral perfusion was stopped and the aorta was deaired with the patient in [redacted] and systemic perfusion was restarted. There was reasonable hemostasis at the beginning as the patient was rewarmed; however, subsequently, it was noted that a tremendous amount of bleeding was begun through the left chest once again. The patient was then recooled again, the heart packed in ice as previously, and the repair was re-examined after the patient was brought back to 18°C and retrograde cerebral perfusion restarted. With the patient shut off once again, multiple 3-0 pledgeted sutures were placed about the circumference of the repair in order to provide adequate stabilization of the repair; however, the aorta was quite thin and friable and did not take sutures very well. In order to get even further exposure, a left third interspace anterior thoracotomy was performed and the chest opened on the left pleural side. The lung was retracted and the exposure retroesophageally was quite difficult and the repair area was able to be visualized; however, due to lack of any supporting stroma in this area, further repair and buttressing of the suture line was nearly impossible. Hemostasis was quite difficult to achieve. Once appropriate sutures were placed, the patient was subsequently deaired once again and systemic perfusion restarted and the cerebral perfusion stopped. With the patient now again rewarming, the heart came back quite nicely with a sinus rhythm. Once the patient reached normothermia, it appeared apparent that the patient had once again

PATIENT NAME:
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DATE OF SERVICE:

broken down the repair of the transverse aortic arch. There was difficulty at this point with venous return as it appeared that all the blood coming in through the femoral cannula was coming up into the transverse arch and exiting into the pleural spaces bilaterally. This was brought by pump suction back to the pump and there was essentially no systemic perfusion as the venous side of the patient was completely dry. With no flow on the venous side, the patient developed intractable acidosis and subsequently the heart could not be resuscitated and the patient was pronounced dead at 12:16 a.m. on 1996. The patient's family was present, a son and daughter as well as the nephew, and I informed them personally of the patient's passing. The medical examiner was also summonsed and the details of the motor vehicle accident and the patient's massive chest injuries described and after speaking with Dr. the covering county medical examiner, he felt that the coroner's autopsy was not necessary. The patient's chest was closed as well as the right groin closed and the cannulae removed. The patient was brought to the holding area at the family's request for immediate viewing and this was carried out. The corpse was then subsequently transferred to the morgue.

_____ 96

M.D. DATE
Assistant Professor
Department of Surgery

D:
T:

HOSPITALS, INC.
RADIOLOGY REPORT / NUCLEAR MEDICINE

REPORT OF RADIOLOGIST

DATE OF REPORT:

PATIENT'S NAME:
HOSPITAL NUMBER:
DATE OF SERVICE:
STATUS: Emergency Dept
REFERRING PHYS:

CHEST, CERVICAL SPINE, AND PELVIS

COMMENTS: Radiographic exam performed on this 71-year-old male status post motor vehicle accident.

DESCRIPTION: A single view of the lateral cervical spine is presented for interpretation. There is normal alignment of the cervical vertebrae with advanced degenerative changes from the level of C3 through C7 with disk space narrowing and anterior osteophyte formation. No acute fracture or subluxation is demonstrated. No gross soft tissue swelling is noted.

IMPRESSION: Advanced degenerative disk disease from C3 through C7 without acute radiographic findings.

CHEST

DESCRIPTION: A single portable chest projection is presented for interpretation. Marked widening of the mediastinum is noted with near complete opacification of the right lung field. The endotracheal tube is in place with good position above the carina. A nasogastric tube crosses the field with its distal portion extending past the diaphragm. The patient is on a backboard and the film is somewhat underpenetrated. No obvious fractures are demonstrated.

IMPRESSION:
1. Nasogastric tube and endotracheal tube in place.
2. Marked opacification of the right hemithorax which is consistent with a large effusion and atelectasis. Recommend complete PA and lateral chest when clinically indicated.
3. The left lung field is not fully expanded with opacification noted at the superior lung field margin.

PELVIS

DESCRIPTION: A single AP projection of the pelvis was present with the patient on a spine board. No fracture, dislocation, or diastasis is

PX1

PATIENT'S NAME:
HOSPITAL NUMBER:
DATE OF SERVICE:
STATUS: Emergency Dept
REFERRING PHYS:

[redacted]

demonstrated. No soft tissue swelling is noted. Stool and gas is noted within the rectum.

IMPRESSION: No acute radiographic abnormalities demonstrated.

_____ _____
M.D. Date

I have personally reviewed this study and agree with the findings.

_____ _____
M.D. Date

D:
T:

HOSPITALS, INC.
RADIOLOGY REPORT / NUCLEAR MEDICINE

REPORT OF RADIOLOGIST

DATE OF REPORT:

PATIENT'S NAME:
HOSPITAL NUMBER:
DATE OF SERVICE:
STATUS: Emergency Dept
REFERRING PHYS:

PORTABLE CHEST AT 2046 HOURS

COMMENTS: Chest exam on this 71-year-old male status post motor vehicle accident for tube placement.

DESCRIPTION: A single portable projection of the chest is presented for interpretation which is a limited exam secondary to underpenetration and the patient is on a backboard. The endotracheal tube is in good position with a nasogastric tube extending past the level of the diaphragm. Two chest tubes are noted with their tips at the bilateral lung apices. Slight increased expansion of the left lung field is demonstrated. Persistent widening of the mediastinum is demonstrated.

IMPRESSION: Chest tube tips in region of the lung apices bilaterally with endotracheal tube and nasogastric tubes in place. Widening of the mediastinum persists and injury to the great vessels cannot be excluded by this presentation. Recommend further evaluation if clinically indicated.

_____ _____
M.D. Date

I have personally reviewed this study and agree with the findings.

_____ _____
M.D. Date

D:
T:

PX2

HOSPITALS

STAFF NOTES

Date Service

STR H+P

72 yo. s/p MVA head-on ? restrained, ? ETOH,
walking on scene & confused.

@ 1611 Arterogram
MC, arteriogram showed
ascending aneurysm
Dissecting ascending aorta aneurysm. Transported to

Referring Doc :

ETA : 7:15 p BP 60/palp

arrives
Pt arrives on BB, intubated IV + blood (900 cc in) 3rd c blood.
arterial
NGT. Pt unresponsive. Femoral art line on (R); (L) AC line

Initially BS (B), BP ↓,

HR 87 BP 60 → 84/palp

Head (L) lac over eyebrow Ø blood per ears
reactive lesion
Pupils 2+ + reactive. Ø depression lesion over head

Neck Ø JVD,
initially
Chest (B) BS initially, contusion (L) chest Ø bony deformities;

Heart RR ? (~)

Abd. initially soft c Ø BS, scaphoid appearance.

Pelvis ? to compression ↑

normal poor tone
Rectal Heme (+) prostate normal position poor sphincter tone

Ext - initially palpable pulses +
obvious bony deformities lacerations
Ø obvious bony deformities Ø lacs

50.2 (R 10/92)

PP1

BEST AVAILABLE

Date	Service	[redacted]
		Back → Ø seen
	lower extremities	Leg's Ø obvious deformities Ø loss
		Pt's BP ↓, has Femoral vns (L) placed → PRBC in ?'s
		(R) SC placed
		CXR's bleed in chest (L), then (R)
		Chest tubes placed (B) [redacted] bleed (R) > (L)
		↓ sx.
		Pt urinated spont., got foley.
		Repeat CXR ē ↑ hemothorax
		Lat C-spine - ?
		abd/pelvis - ?
		Abdomen become more firm + slightly distended;
		bleed ↑ (R) chest tube, BP ↓.
		Pt went to OR emergently for CT sx.
		Labs: ABG 7.437/26.2/173/17.8/+4.1 on 100% FiO2
		PT = 14.5 Amy = 31 Glucose = 270
		PTT - 24.5 CPK: 341 Fibrinogen = 158
		10.2 > 12.7 / 36.8 < 172 132 / 4.1 | 103 / 15 | 11 / 0.9 <
		Ø EtOH
		UA = 1.005

Ø bleed

T+C 12 = O⊕ screen neg

BEST AVAILABLE

HOSPITALS

[redacted]

STAFF NOTES

Date Service

A/P – ① 72yo. s/p Hem... MVA [illegible];
Ⓑ CT, firm abd. c̄ ↓BP
emergent OR (CT) + ex lap.
② admit STR / Sign

| 044

[redacted]

50.2 (R 10/92)

FP1 (Continued)

BEST AVAILABLE

[redacted]

HOSPITALS

STAFF NOTES

Date Service

Anesthesia Pre Op

This 71 year old male head on MVA
hit another car. Male pt at scene was
collosped
fully anesthia collosped - taken to
scene intubated at scene -- Life Flight
to WVU.
E.R. received 4-units O-neg.
Heart Rate
BP 70/p. HR 120. 100% sat
Intubated .. 8.0. 100% O2
rt
Lines ~~left~~ femoral arterial line
left femoral trauma cordis
left subclavian 8.5 french cordis
3 peripheral lines 14, 16, 18 gauge
Emergency nature of this case
Due to the nature of this case.
was unable discuss? family member
was unable to discuss family member
CT Surgeon on scene ~~take~~ pt taken
To Room 16. C-P Bypass ready

BEST AVAILABLE

HOSPITALS

STAFF NOTES

Date Service

CTS STAFF preop

71 y/o wm ~ 4-5 hrs post HEAD ON MVA IN Area, transferred to Ruby Memorial in shock c̄ diagnosis of traumatic aortic transection. The patient arrived ~ 7:15pm in ED. to trauma team where they began/continued resuscitation. CT surgery was then consulted due to medical indications and to review angiogram of aorta done at an outside hospital. The angiogram did demonstrate an enlarged ectatic aorta with fusiform 4-5 cm dilation throughout. Had 4 arch vessels and right arch. Transection evident in transverse arch in the midline and after consultation with Dr and Dr we elected to procede c̄ a median sternotomy approach. The patient was in shock upon arrival to O.R c̄ b/l chest tubes actively draining blood requiring massive volume and blood resuscitation. A nephew was here and he was informed of situation, need for urgent intervention and he agreed with our plans to procede to the O.R. immediately

0100 CTS STAFF= death note

Despite maximum resuscitative efforts
the aortic injury could not be controlled and
the patient was pronounced dead at 0016 hrs
Family informed by me the M.E. notified -
he did not wish to pursue post mortem exam

Hospital

Staff Notes

CVT OP NOTE	
PRE-OP DX	TRAUMATIC TRANSECTION AORTIC ARCH, (TRANSVERSE)
POST-OP NOTE (dx)	SAME
PROCEDURE	Repair TRAUMATIC TRANSVERSE AORTIC ARCH TRANSECTION
ATTENDING SURGEON	VASILAKIS
SURGEONS	
ANESTHESIA	GETA
SPECIMEN	∅
CULTURE	∅
DRAINS	∅
IMPLANTS	∅
FINDINGS	right sided aortic arch which passed posteriorly

to trachea. Deceleration injury caused aorta to tear
placed on CPB via (R) atrium / (L) fem A. cooled down
to 18° C and aorta repaired x 2, ~~but~~ but sutures
would not hold. Patient presented in shock in ~~or~~ OR
c̄ exsanguination. He expired ~~1246~~ 0016 hrs
Family notified by me. The
medical examiner was notified [shortly/Charleston?] as
, locally who said that autopsy was
not required.

staffnot:8/95

PP4

NAME:
HOSP NO:
AGE: 71Y SEX: M

LOC: ED ROOM:
DR. DR. UNKNOWN
DR. CODE:

========== PHYSICIAN COPY FOR ==========

********** MISCELLANEOUS DRUG ASSAYS **********

TEST:	ETHANOL SERUM	
UNITS:	mg/dL	
LO-HI:		
1934	NONE DETECTED	

********** URINE DRUG SCREEN **********

1934 UR DRUG SCREEN LTD.

AMPHETAMINE, URINE	NEGATIVE	[NEG]
BARBITURATE, URINE	NEGATIVE	[NEG]
BENZODIAZEPINE,URINE	NEGATIVE	[NEG]
CANNABANOID, URINE	NEGATIVE	[NEG]
COCAINE METAB. URINE	NEGATIVE	[NEG]
OPIATE, URINE	*POSITIVE	[NEG]

RESULT VERIFIED BY DUPLICATE TEST. POSITIVE RESULTS ARE UNCONFIRMED AND SHOULD BE CONSIDERED PRESUMPTIVE ONLY. REQUEST CONFIRMATION IF INDICATED.

PROPOXYPHENE, URINE	NEGATIVE	[NEG]

********** ROUTINE BLOOD BANK **********

TEST:	ABO/RH(D)	ANTIBODY SCREEN	UNITS ORDERED	SPECIMEN EXPIRATION DATE
LO-HI:				
1934	O POSITIVE	NEGATIVE	34	

LR1

NAME:
HOSP NO:
AGE: 71Y SEX: M

LOC: ED [redacted] ROOM:
DR. DR. UNKNOWN
DR. CODE:

========== PHYSICIAN COPY FOR ==========

********** RED CELL PRODUCTS ISSUED **********

	Component	ABO/Rh	Unit Number	Volume	Comment
2042	PC-ADSOL	O NEG	27FN42143	300	
	PC-ADSOL	O POS	27GC27829	300	
	PC-ADSOL	O POS	27GC27836	300	
	PC-ADSOL	O POS	27GC27842	300	
	PC-ADSOL	O POS	27GC27873	300	
	PC-ADSOL	O POS	27GC27883	300	
	PC-ADSOL	O POS	27GC27887	300	
	PC-ADSOL	O POS	27GC27888	300	
	PC-ADSOL	O POS	27GC27896	300	
	PC-ADSOL	O POS	27GC27906	300	
	PC-ADSOL	O POS	27GC27924	300	
	PC-ADSOL	O POS	27GC27942	300	
	PC-ADSOL	O POS	27GC27968	300	
	PC-ADSOL	O POS	27GC27970	300	
	PC-ADSOL	O POS	27GP43320	300	
	PC-ADSOL	O NEG	27M43027	300	
2108	PC-ADSOL	O POS	27GC27885	300	
	PC-ADSOL	O POS	27GC27937	300	
	PC-ADSOL	O POS	27GC27961	300	
	PC-ADSOL	O POS	27GC27963	300	
	PC-ADSOL	O POS	27GC27966	300	
	PC-ADSOL	O POS	27GC27973	300	
2126	PC-ADSOL	O POS	27GC27870	300	
	PC-ADSOL	O POS	27GC28218	300	
	PC-ADSOL	O POS	27GP43427	300	
	PC-ADSOL	O POS	27V51028	300	

********** BLOOD PRODUCTS CROSSMATCHED NOT TRANSFUSED **********

	Component	ABO/Rh	Unit Number	Volume	Comment
96					
934	PC-ADSOL	O POS	27FV25517	300	
	PC-ADSOL	O POS	27GC27880	300	
	PC-ADSOL	O POS	27GC28190	300	
	PC-ADSOL	O POS	27GC28207	300	
	PC-ADSOL	O POS	27GC28217	300	
	PC-ADSOL	O POS	27GC28221	300	
	PC-ADSOL	O POS	27GC28230	300	
	PC-ADSOL	O POS	27GP43441	300	

CONTINUED

NAME: [redacted]
HOSP NO:
AGE: 71Y SEX: M

LOC: ED ROOM:
DR. DR. UNKNOWN
DR. CODE:

========== PHYSICIAN COPY FOR [redacted] ==========

********** RESPIRATORY CARE: ROUTINE BLOOD GASES **********

TEST:	SPECIMEN TYPE	PH	PCO2	PO2	HCO3	BASE DEFICIT	FIO2
UNITS:			mmHg	mmHg	mmol/L	mmol/L	%
LO-HI:		7.350-7.450	36.2-46.2	72-100	20.0-29.0	0.0-3.0	21-100
R1934	ARTERIAL	7.437	26.2*	173*	17.8*	4.1*	100

LR1 (Continued)

HOSPITALS
M.D. - DIRECTOR
CLINICAL LABORATORIES

NAME:
HOSP NO.:
AGE: 71Y SEX: M

LOC: ED
DR. DR. UNKNOWN
DR. CODE:

========== PHYSICIAN COPY FOR DR: SCOTT, MARY BETH (B0026) ==========

********** RESPIRATORY CARE: ROUTINE BLOOD GASES **********

TEST:	SPECIMEN TYPE	PH	PCO2	PO2	HCO3	BASE DEFICIT	FIO2
UNITS:			mmHg	mmHg	mmol/L	mmol/L	%
LO-HI:		7.350-7.450	36.2-46.2	72-100	20.0-29.0	0.0-3.0	21-100
R2047	ARTERIAL	7.102*	46.7*	96	14.7*	13.2*	100

- - - - - - - - - - - - - - RESPIRATORY CARE: ROUTINE BLOOD GASES - - - - - - - - - - - - - -

TEST:	WHOLE BLOOD POTASSIUM	WHOLE BLOOD IONIZED CALCIUM
UNITS:	mmol/L	mmol/L
LO-HI:	3.5-5.0	1.30-1.46
R2047	4.6	0.48*

********** RESPIRATORY CARE: TEMPERATURE COMPENSATED VALUES **********

TEST:	PO2	PH	PCO2	PATIENT TEMP
UNITS:	mmHg		mmHg	C
LO-HI:	72-100	7.350-7.450	36.2-46.2	15.0-40.0
R2047	74	7.153*	39.2	33.0

********** RESPIRATORY CARE: COOXIMETER PANEL **********

TEST:	O2-HB	CO-HB	MET-HB	TOT-HB	O2 CONTENT
UNITS:	%	%	%	g/dL	%
LO-HI:	85.0-98.0	0.0-2.5	0.0-3.0	14.0-18.0	17.6-24.3
R2047	97.5	0.7	0.2	7.1*	9.6*

END OF REPORT

LR 2

HOSPITALS
M.D. - DIRECTOR
CLINICAL LABORATORIES

NAME:
HOSP NO.:
AGE: 71Y SEX: M

LOC: ED
DR. DR. UNKNOWN
DR. CODE:

========== PHYSICIAN COPY FOR DR: ==========

********** RESPIRATORY CARE: ROUTINE BLOOD GASES **********

TEST:	SPECIMEN TYPE	PH	PCO2	PO2	HCO3	BASE DEFICIT	FIO2
UNITS:			mmHg	mmHg	mmol/L	mmol/L	%
LO-HI:		7.350-7.450	36.2-46.2	72-100	20.0-29.0	0.0-3.0	21-100
R2214	VENOUS	7.052*	42.2	23*	11.8*	16.1*	40
R2216	ARTERIAL	7.571*	13.8*	202*	12.8*	7.3*	40

- - - - - - - - - - - - - - - RESPIRATORY CARE: ROUTINE BLOOD GASES - - - - - - - - - - - - - - -

TEST:	WHOLE BLOOD POTASSIUM	WHOLE BLOOD IONIZED CALCIUM
UNITS:	mmol/L	mmol/L
LO-HI:	3.5-5.0	1.30-1.46
R2214	3.6	0.59*
R2216	4.4	0.59*

********** RESPIRATORY CARE: TEMPERATURE COMPENSATED VALUES **********

TEST:	PO2	PH	PCO2	PATIENT TEMP
UNITS:	mmHg		mmHg	C
LO-HI:	72-100	7.350-7.450	36.2-46.2	15.0-40.0
R2214	14*	7.139*	31.0*	30.0
R2216	164*	7.681*	10.1*	30.0

********** RESPIRATORY CARE: COOXIMETER PANEL **********

TEST:	O2-HB	CO-HB	MET-HB	TOT-HB	O2 CONTENT
UNITS:	%	%	%	g/dL	%
LO-HI:	85.0-98.0	0.0-2.5	0.0-3.0	14.0-18.0	17.6-24.3
R2214	46.8	1.3	0.0	5.1*	3.3*
R2216	97.4	2.5	0.2	7.3*	9.9*

DATE

OUTPATIENT MEDICAL RECORDS COPY

END OF REPORT
PAGE 1

LR 3

[redacted] HOSPITALS
M.D. - DIRECTOR
CLINICAL LABORATORIES

[redacted]

NAME:
HOSP NO.:
AGE: 71Y SEX: M

LOC: ED
DR. DR. UNKNOWN
DR. CODE:

========== PHYSICIAN COPY FOR DR: VASILAKIS, ALEXANDER (B0129) ==========

********** RESPIRATORY CARE: ROUTINE BLOOD GASES **********

TEST:	SPECIMEN TYPE	PH	PCO2	PO2	HCO3	BASE DEFICIT	FIO2
UNITS:			mmHg	mmHg	mmol/L	mmol/L	%
LO-HI:		7.350-7.450	36.2-46.2	72-100	20.0-29.0	0.0-3.0	21-100
R2110	ARTERIAL	7.089*	53.1*	301*	16.2*	12.2*	40
R2111	VENOUS	6.994*	62.3*	43	15.3*	14.5*	40
2315	VENOUS	7.433	26.5*	273*	17.9*	5.1*	40
2315	VENOUS	7.160*	49.0	40	17.6*	9.3*	40

- - - - - - - - - - - - - - RESPIRATORY CARE: ROUTINE BLOOD GASES - - - - - - - - - - - - - -

TEST:	WHOLE BLOOD POTASSIUM	WHOLE BLOOD IONIZED CALCIUM
UNITS:	mmol/L	mmol/L
LO-HI:	3.5-5.0	1.30-1.46
R2110	6.7*	1.24*
R2111	5.7*	1.14*
2315	3.8	0.54*
2315	3.8	0.56*

********** RESPIRATORY CARE: TEMPERATURE COMPENSATED VALUES **********

TEST:	PO2	PH	PCO2	PATIENT TEMP
UNITS:	mmHg		mmHg	C
LO-HI:	72-100	7.350-7.450	36.2-46.2	15.0-40.0
R2110	240*	7.249*	30.6*	24.4
R2111	18*	7.146*	35.9*	24.4
2315	220*	7.597*	16.4*	26.0
2315	18*	7.304*	30.3*	26.0

[redacted]

LR4

Appendix B:

SELECTED PHOTOGRAPHS

A total of sixteen color copies of photographs are presented and referenced as Photograph **#01** through Photograph **#16**. All of these photographs were provided by the West Virginia State Police.

01: On scene view of Vehicle #2's northward travel path in left curve portion of "S" curve (see photo #02) from approximately 30 meters (98 feet) south of impact

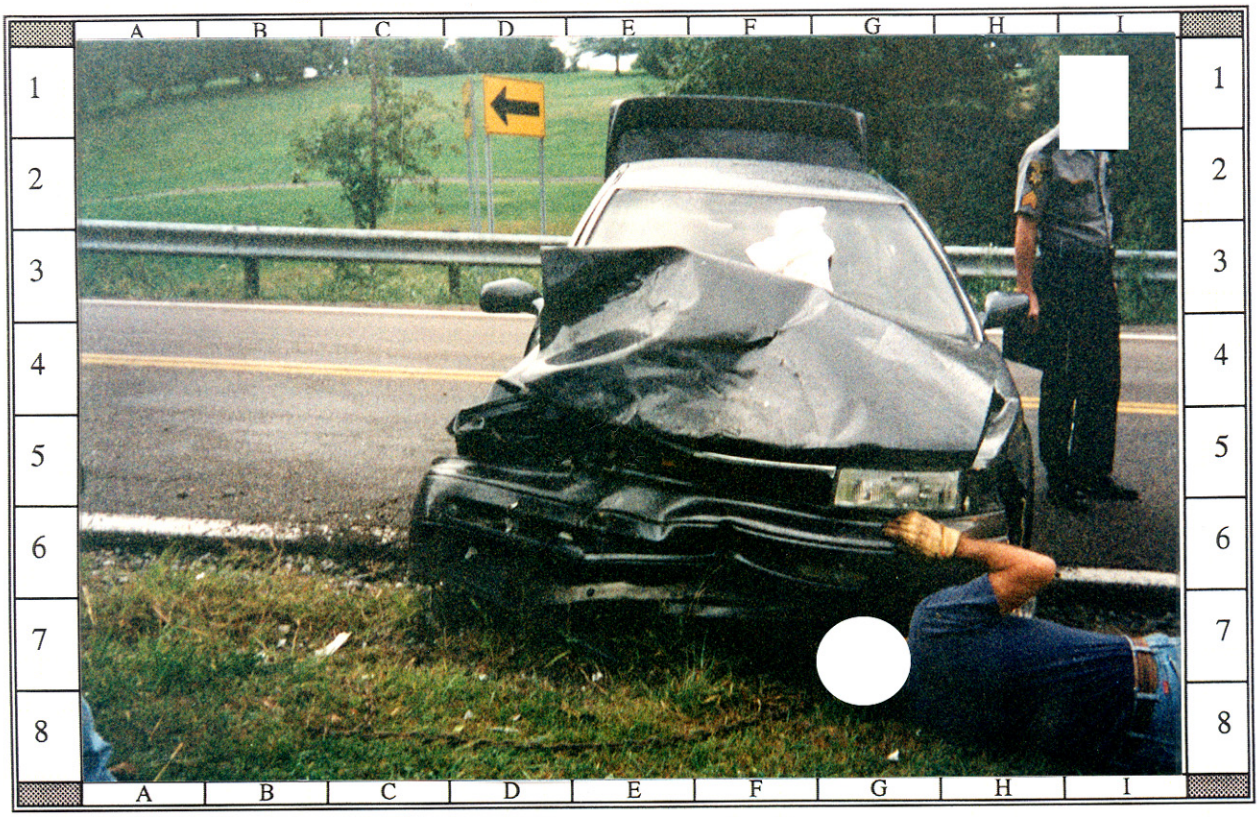
02: On scene view of Case Vehicle's southward travel path in right curve portion of "S" curve from ~ 15 meters (49 feet) north of impact--both vehicles at final rest

Remote Scene View of Crash Involving a 1994 Nissan Maxima (Case Vehicle) and a 1990 Geo Prizm (Vehicle #2)

03: On scene view of Case Vehicle's final rest position, heading west, perpendicular to southbound lane in right curve, from ~ 8 meters (26 feet) north of impact

04: On scene southward view of Case Vehicle and Vehicle #2 at final rest; NOTE: clockwise rotation after impact and Vehicle #2's approach path (cells H4--H5)

Remote Scene View of Crash Involving a 1994 Nissan Maxima (Case Vehicle) and a 1990 Geo Prizm (Vehicle #2)

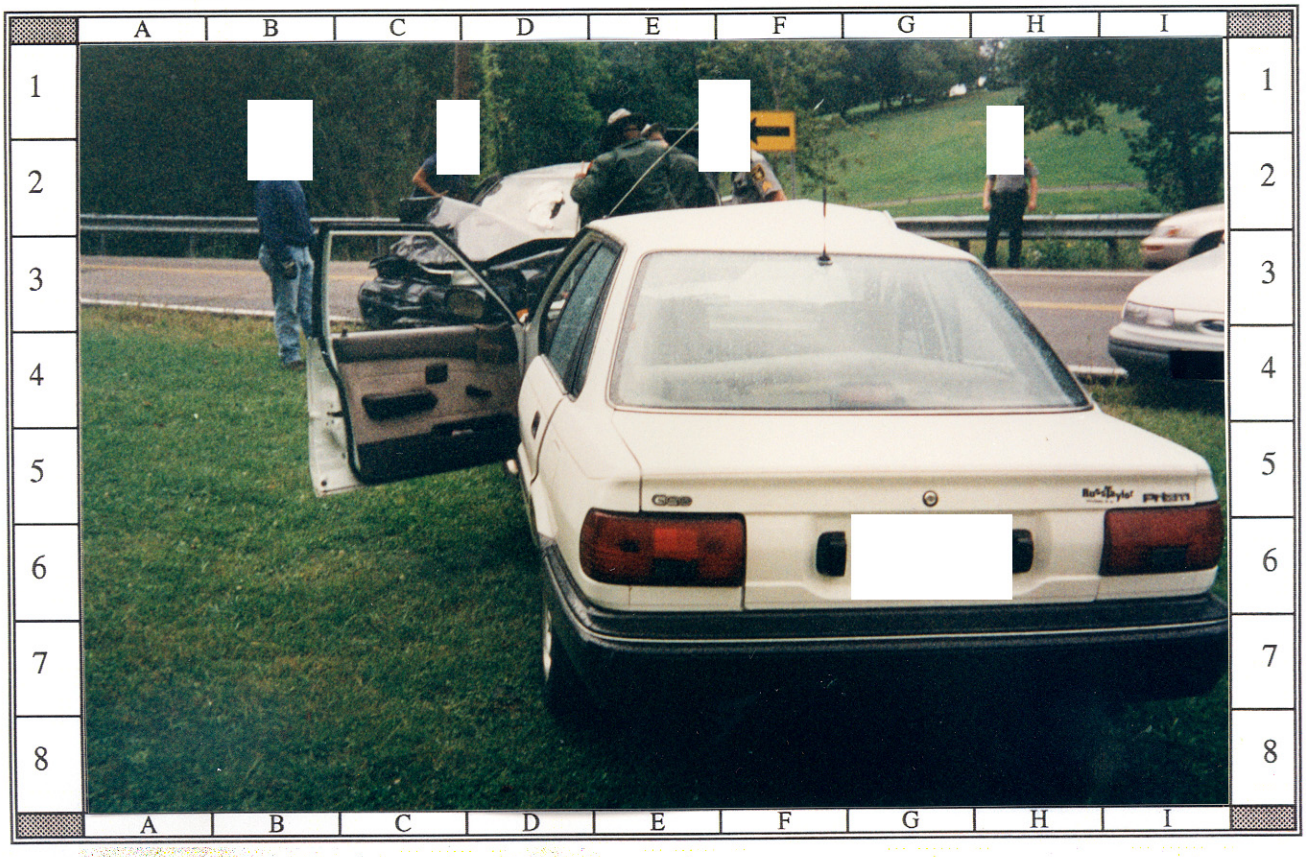


05: On scene eastward view of Case Vehicle at final rest showing front right damage and rightward front end shift; NOTE: CURVE WARNING sign in background

06: On scene westward view of Case Vehicle at final rest showing undamaged back; NOTE: the right front door appears to have sustained induced damage

Remote Scene View of Crash Involving a 1994 Nissan Maxima (Case Vehicle) and a 1990 Geo Prizm (Vehicle #2)

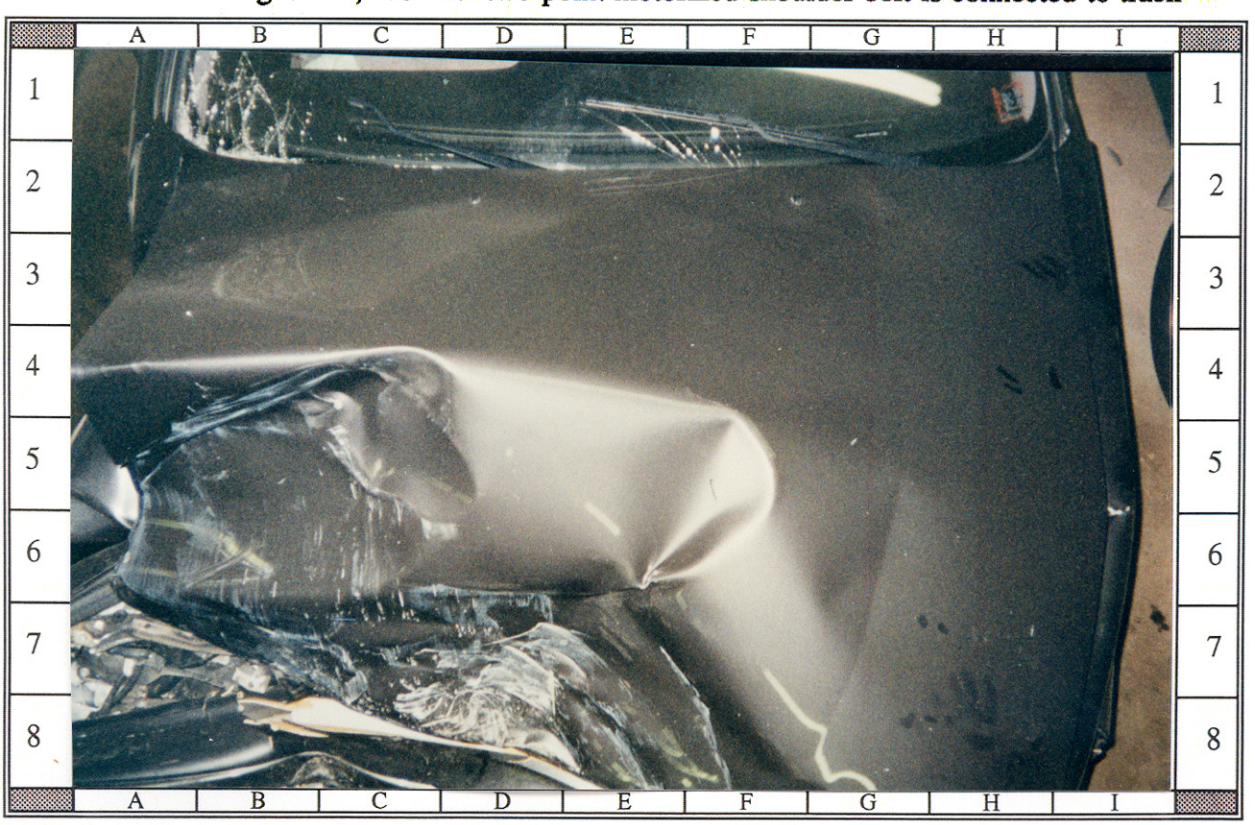
07: On scene westward view of Vehicle #2 at final rest (heading northeast) showing severe frontal damage, roof buckling, and induced damage to right front door



08: On scene northeastward view of Vehicle #2 at final rest showing undamaged back; NOTE: Case Vehicle in background and CURVE WARNING sign

Remote Scene View of Crash Involving a 1994 Nissan Maxima (Case Vehicle) and a 1990 Geo Prizm (Vehicle #2)

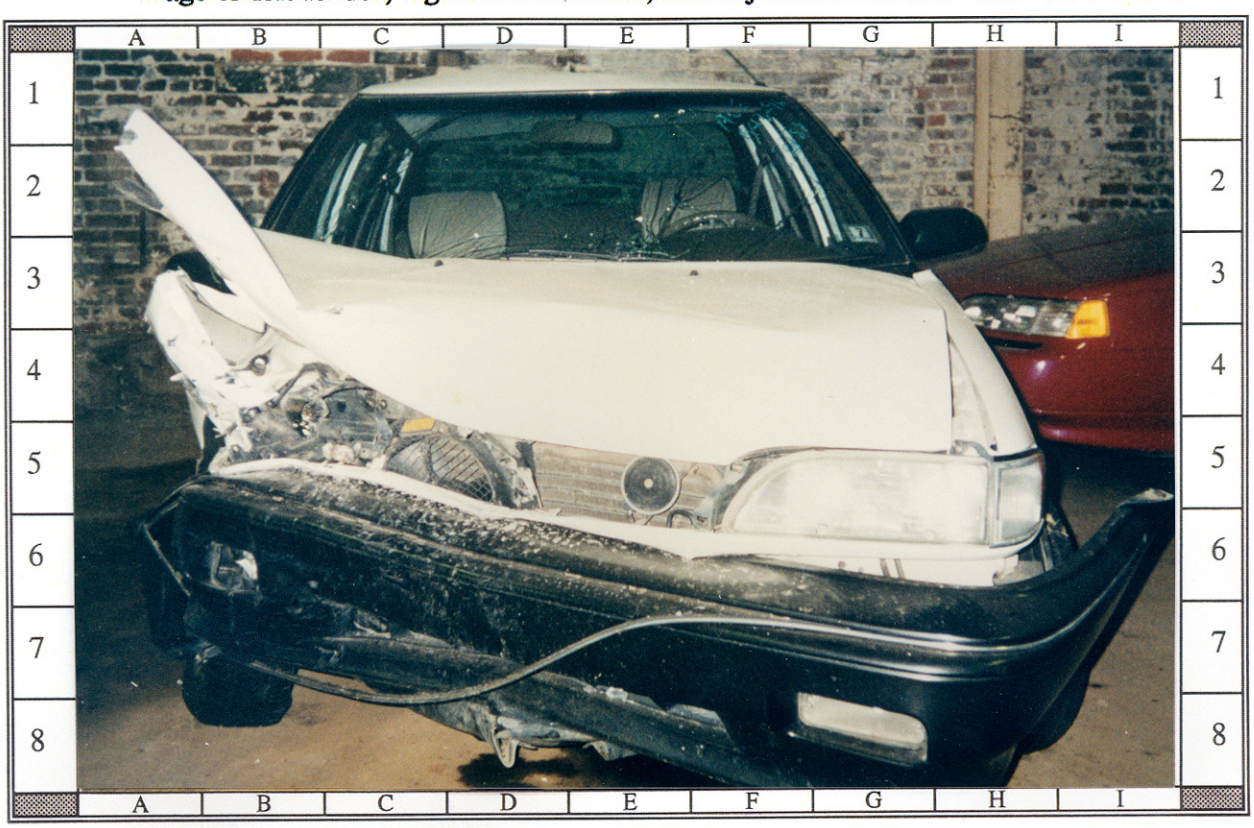
09: Case Vehicle's direct frontal damage showing offset nature of impact to vehicle's front right half; NOTE: two-point motorized shoulder belt is connected to track



10: Vertical close-up of Case Vehicle's direct frontal damage; NOTE: induced impact damage to base of windshield at center and right side

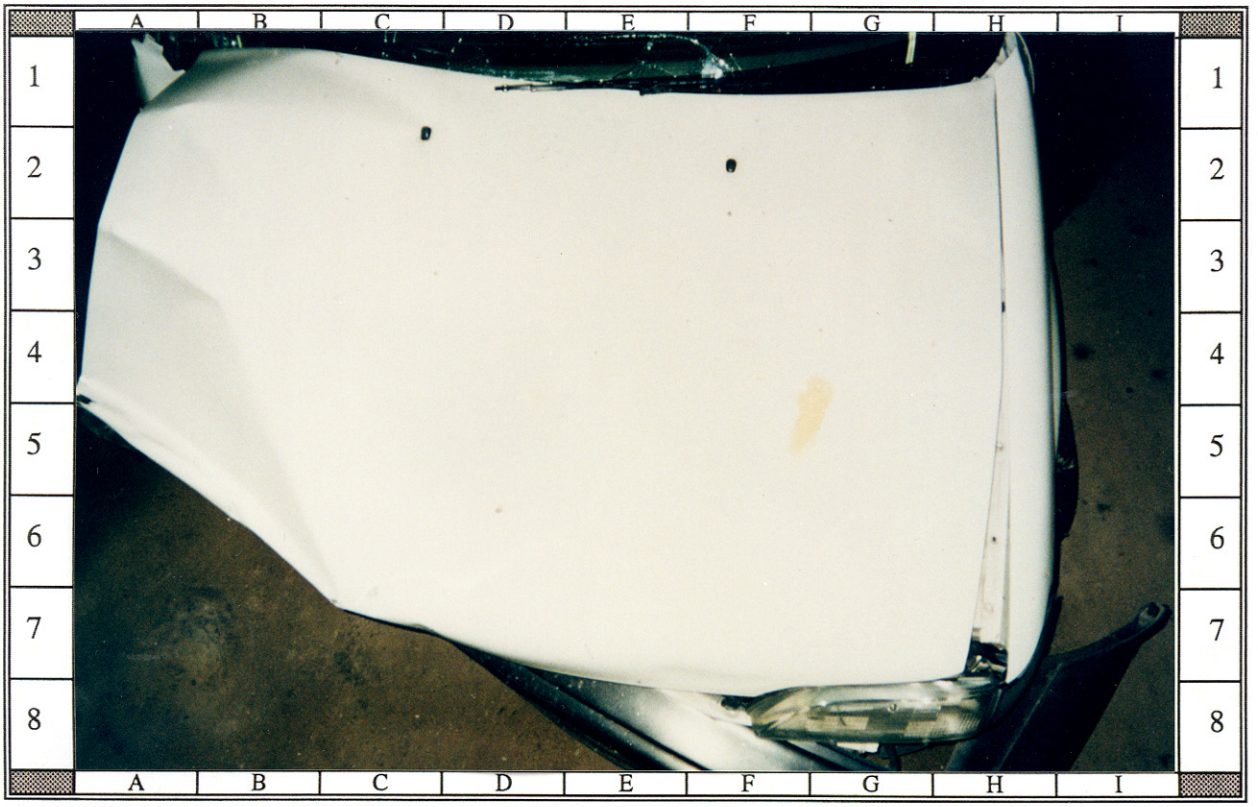
Case Vehicle: 1994 Nissan Maxima GXE, 4-Door Sedan, FWD, 5-Passenger, 3.0 L (181 in^3) V-6 SMPFI

11: Reference line view of Case Vehicle's left side from front showing induced damage to left fender, rightward end shift, and adjustable driver's head restraint



12: 1990 Geo Prizm's severe frontal damaged viewed from bumper line perspective; NOTE: maximum crush is at C_6 and adjustable front head restraints

Case Vehicle: 1994 Nissan Maxima GXE, 4-Door Sedan, FWD, 5-Passenger, 3.0 L (181 in^3) V-6 SMPFI



13: Overhead view of Vehicle #2's frontal crush profile showing rightward offset nature of vehicle's impact and maximum crush at C_6

14: Front vertical view of induced damage to right side of Vehicle #2's roof; NOTE: induced damage to windshield and front bucket seats

Vehicle #2: 1990 Geo Prizm, 4-Door Sedan, FWD, 5-Passenger, 1.6 L (97 in^3) I-4 MPFI

15: Vehicle #2's frontal crush viewed from left showing slanted front bumper and induced damage to hood, left fender, and windshield

16: Vehicle #2's frontal crush viewed from right showing offset nature of crush profile, direct damage right fender, and induced damage to hood and windshield

Vehicle #2: 1990 Geo Prizm, 4-Door Sedan, FWD, 5-Passenger, 1.6 L (97 in^3) I-4 MPFI